

**China: Rule-taker or Rule-maker
in the International Intellectual Property System?**

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Declaration

I hereby declare that this thesis is exclusively the result of my own work and has not been submitted for any other degree at any other university or education institution. All sources of information used in this thesis have been indicated and due acknowledgement has been given to the work of others.

Signed:



Wenting Cheng

Date: June 4, 2018

Dedication

To my parents

Acknowledgment

Five years ago when I was working at the State Intellectual Property Office of China, I was commissioned to draft a research report in response to the EU Chamber of Commerce in China (EUCCC)'s criticism of the quality of Chinese patents.¹ Patent quality was raised as an issue partly because patent applications submitted to SIPO became No. 1 in the world in 2011. My report justified the utility model system which is suitable to China's stage of development by accrediting incremental innovations. I also cited the SIPO Commissioner Tian Lipu's Speech calling for "active participation in international IP rule-making" (see Section 1.4.4.2) but failed to provide a feasible roadmap to realize this goal. Nonetheless, this report and other research projects I worked on inspired me to think more profoundly about the role of China in the international IP system. I then reached out to Professor Peter Drahos who I have read, cited and been influenced by when I was doing research in SIPO, proposing a Ph.D. project on the role of the emerging powers in the international IP system. I was fortunate that Peter agreed to supervise me and ANU provided a 3.5-year scholarship to support this project.

I could not believe I finally reached the end of this Ph.D. journey considering all that had happened in the Ph.D. journey. This thesis would not be possible without the love and support of many people:

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¹ EU Chamber of Commerce in China. 2012. *Dulling the Cutting Edge: How Patent-Related Policies and Practices Hamper Innovation*. See http://www.europeanchamber.com.cn/en/publications-archive/14/Dulling_the_Cutting_Edge_How_Patent_Related_Policies_and_Practices_Hamper_Innovation.

(RegNet) and later become the chair of the panel. She has been very supportive when I had to change the chair of supervision. Her reservoir of international theories guided me directly to the resources I needed, and her detailed comments on the choice of words saved me as a non-native English speaker. I thank other panel members, Professor Ken Shao, Dr. Christian Downie and Dr. Miranda Forsyth, for their inputs of perspectives from different disciplines which makes this thesis interdisciplinary. I also thank Dr. Hazel V J Moir for her detailed comments on Chapter Three and her help for refining the language of this thesis. I thank Dr. Kathie Brown and Dr. Nicola van Dijk for proofreading this thesis.

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Most importantly, I am deeply indebted to parents. My mother was diagnosed with lung cancer in my first year and passed away in my third year of the Ph.D. It is a shame that she can not see me finishing the Ph.D. I dedicate this thesis to my parents, for the fearlessness and perseverance they taught me through their words and deeds.

Abstract

Intellectual property has been a crucial issue for China in the past four decades. Internationally, it was central to China's fifteen-year negotiation on its accession to the WTO and has been a priority in China-US bilateral relations. Domestically, changes in the regulation and use of intellectual property reflect a larger picture of rapid economic and social transition in China. Initially, China was a rule-taker in intellectual property, experiencing pressure from abroad to do much more on intellectual property. In response, China enacted comprehensive domestic intellectual property laws. From 2001, the Chinese Trademark Office was registering more trademarks than any other office in the world and from 2011, the State Intellectual Property Office of China (SIPO) became the world's largest patent office. Today the Chinese government promotes intellectual property protection in its national strategy of "innovation-driven development" and seeks to transform China into the world's leading intellectual property power. This thesis focuses on whether the large-scale deployment of intellectual property by China in various markets means that it has become a regulatory power in intellectual property, in the sense of being an agenda setter and source of global influence over IP rules. The UK in the nineteenth century and the US in the twentieth were regulatory IP powers in this sense.

China's regulatory and international influence over IP rules is tracked empirically through case studies on geographical indications (Chapter 3), the disclosure obligation (Chapter 4), and intellectual property and standardization (Chapter 5), along with an examination of China's international IP engagement at the bilateral level (Chapter 6) and plurilateral and multilateral levels (Chapter 7). This thesis also analyses the roles of sub-state actors and non-state actors in China's international intellectual property engagement (Chapter 8).

This thesis argues that China's role in international intellectual property regulation is more nuanced and complicated than a binary categorization of "rule-maker" or "rule-taker". China's international IP engagement is guided by a group of key principles, specifically the principles of IP instrumentalism and a set of foreign policy principles. These principles have been implemented through a process of modeling, while potential conflicts have been minimized through a strategy of balancing. The effects of modeling are compliance and institutional isomorphism which makes the Chinese IP system similar to those of developed countries. Balancing leads to constructed inconsistency and has led China into keeping a low-profile in international policy debates on intellectual property.

Translation of Chinese Terms

The spelling of Chinese people's names in this thesis follows the China's national standard *Chinese Phonetic Alphabet Spelling rules for Chinese Names* (GB/T 28039-2011)¹, which generally adopts the "Surname + Given Name" order and capitalizes the initials. For instance:

Zheng Chengsi for 郑成思.

The spelling of Chinese geographical names follows the pinyin system (the standard system of Romanised spelling for transliterating Chinese characters).

Chinese laws, administrative regulations, ministerial rules, and terms originally used in Chinese are translated in English directly to facilitate the understanding by English speakers. The general rule to deal with these Chinese terms is: English translation + Chinese characters + [*pinyin*], for example:

The Belt and Road Initiative 一带一路倡议 [*yidaiyilu changyi*].

Publications in Chinese are cited extensively in this thesis. Author names, titles, and sources of the Chinese publications are translated into English in the reference lists. In translating titles of these publications, I directly adopt the English translation when such translation is available at the database China National Knowledge Infrastructure (CNKI) to facilitate research of the source, even if I may have a different translation personally.

¹ Full text of this standard is available at:
<http://www.moe.edu.cn/ewebeditor/uploadfile/2015/01/13/20150113091249368.pdf>.

Abbreviations

3GPP	3 rd Generation Partnership Project
ABS	access and benefit-sharing
ACTA	the Anti-Counterfeiting Trade Agreement
AIIB	the Asian Infrastructure Investment Bank
AmCham China	the American Chamber of Commerce in China
APEC	Asia-Pacific Economic Cooperation
AQSIQ	the General Administration of Quality Supervision, Inspection and Quarantine
ASEAN	the Association of Southeast Asian Nations
AVS	Audio Video coding Standards
Beijing Treaty	the Beijing Treaty on Audio-visual Performance
BRI	the Belt and Road Initiative
BRICS Bank	BRICS Development Bank, also known as the New Development Bank
CBD	Convention on Biological Diversity
CBWIPSG	China Broadband Wireless IP Standard Group
CCP	the Chinese Communist Party
CCPIT	China Council for the Promotion of International Trade
CESI	China Electronic Standardization Institute
CETA	Comprehensive Economic and Trade Agreement
CFDA	China Food and Drug Administration
CMFA	China Ministry of Foreign Affairs
CoCom	the Coordinating Committee for Multilateral Export Controls
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
DMCA	<i>Digital Millennium Copyright Act</i>
DSB	WTO Dispute Settlement Body
EEC	the European Economic Community
EFOW	European Federation of Origin Wines
EPO	European Patent Office
FAO	Food and Agriculture Organization
FDI	foreign direct investments
FRAND	fair, reasonable and non-discrimination
FTA	free trade agreement
FTAAP	Free Trade Area of the Asia-Pacific
G-77	the Group of 77
GAPP	the General Administration of Press and Publishing
GATT	General Agreement on Tariffs and Trade
GCC	Gulf Cooperation Council
GI	geographical indication
GI Extension	extending higher-level protection to products beyond wines and spirits

GI Register	a multilateral system for notifying and registering GIs for wines and spirits
GVCs	global value chains
HIPO	Heads of Intellectual Property Offices, a BRICS IP cooperation mechanism
ICT	information communication technologies
IEEE	the Institute of Electrical and Electronics Engineers
IP	intellectual property
IPC	international patent classification
IPDRC	the Intellectual Property Development and Research Centre of the State Intellectual Property Office of China
IPO	Initial Public Offering
IPR1	EU-China Project on the Protection of Intellectual Property Rights (1999-2004)
IPR2	EU China Project on the Protection of Intellectual Property Rights (2007-2011)
IPRCM	BRICS IPR Cooperation Mechanism
IRCC	Internationally Recognized Certificate of Compliance
IRPL	Implementing Rules of the Patent Law
ISO	the International Standard Organization
ISP	Internet service provider
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
ITU	International Telecommunications Union
IUPGR	International Undertaking on Plant Genetic Resources
JCCT	the Joint Commission on Commerce and Trade
KOREU FTA	South Korea-EU FTA
KORUS FTA	South Korea-US FTA
LAC	Legislative Affairs Committee of the National People's Congress
LAO	Legislative Affair Office of the State Council
Lisbon Agreement	<i>Lisbon Agreement for the Protection of Appellations of Origin and their International Registration</i>
LMMC	Like-Minded Megadiverse Countries
Madrid Agreement	Madrid Agreement Concerning the International Registration of Marks
Madrid Protocol	the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks
MEP	the Ministry of Environmental protection
MFN	the most favored nation
MII	the Ministry of Information Industry
MIIT	the Ministry of Industry and Information Technology
MNCs	multinational corporations
MOA	the Ministry of Agriculture
MOC	the Ministry of Culture

MOF	the Ministry of Finance
MOFCOM	the Ministry of Commerce
MOST	the Ministry of Science and Technology
MOU	Memorandum of Understanding
MSF	Médecins Sans Frontières
NAFTA	North American Free Trade Agreement
Nagoya Protocol	Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity
NB	national body
NCAAC	National Certification and Accreditation Administration Committee
NCAC	the National Copyright Administration of China
NDB	the New Development Bank
NDRC	the National Development and Reform Commission
NPA	the National Publishing Administration
PAIC	Provincial Administration for Industry and Commerce
PCCP	the Politburo of Chinese Communist Party
PCT	Patent Cooperation Treaty
PDO	Protected Designation of Origin
PGI	Protected Geographical Indication
PGRFA	genetic resources for food and agriculture
PIC	prior informed consent
PIPA	<i>Protect Intellectual Property Act</i>
PLT	Patent Law Treaty
PPH	patent prosecution highway
PRC	the People's Republic of China
QUAD	the coalition of Canada, the EC, Japan and the United States in TRIPS negotiations
RAND	reasonable and non-discrimination
RCEP	Regional Comprehensive Economic Partnership
Rome Convention	International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations
S&ED	the US-China Strategic and Economic Dialogue
SAC	the Standard Administration Committee of China
SAIC	the State Administration for Industry and Commerce
SAPPRFT	the State Administration of Press, Publication, Radio, Film, and Television
SBQTS	State Bureau of Quality and Technological Supervision
SCT	the WIPO Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications
SCTK	WIPO Standing Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Traditional Cultural Expressions
SEPs	standard essential patents

SFA	the State Forestry Administration
SIPO	the State Intellectual Property Office of China
SOPA	Stop Online Piracy Act
SPLT	Substantive Patent Law Treaty
SPO	the State Patent Office of China (the predecessor of SIPO)
SSOs	standard setting organizations
SSTC	the State Science and Technology Commission
TBT	technical barriers to trade
TKDL	Traditional Knowledge Digital Library
TNC	the WTO Trade Negotiations Committee
TPP	Trans-Pacific Partnership
TRIPS	the Agreement on Trade-Related Aspects of Intellectual Property Rights
TTIP	Trans-Transatlantic Trade and Investment Partnership
UNESCO	United Nations Educational, Scientific and Cultural Organization
UPOV	the International Union for the Protection of New Varieties of Plants
UPOV Convention	International Convention for the Protection of New Varieties of Plants
USITC	the United States International Trade Commission
USSR	the Union of Soviet Socialist Republics
USTR	the United States Trade Representative
WAPI	WLAN Authentication and Privacy Infrastructure
WCT	WIPO Copyright Treaty
WIPO	the World Intellectual Property Organization
WIPO IGC	WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore
WLAN	Wireless Local Area Network
WPPT	WIPO Performances and Phonograms Treaty
WTO	the World Trade Organisation

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**Part One: Theory and History of China's
International IP Engagement**

Chapter 1 Introduction

1.1 Background

Intellectual property (IP) has been a crucial issue for China for several decades. Internationally, it was central to China's fifteen-year negotiations on its accession to the World Trade Organization WTO and has been a priority in China-US bilateral relations. Domestically, changes in intellectual property reflect rapid economic and social transition in China.

After China's accession to the WTO, Chinese applicants began to make much more active use of different IP systems. The number of IP applications from Chinese residents has surged dramatically in recent years. In 2001, the Chinese Trademark Office registered more trademarks than any other office in the world, and from 2011 the State Intellectual Property Office of China (SIPO) became the world's biggest patent office by receiving the largest number of patent applications. Intellectual property was promoted as a priority on China's national agenda. In 2008, China released the *Outline of the National Intellectual Property Strategy* (National IP Strategy).¹ After 2012, the Chinese government promoted IP protection in its strategy of Innovation-driven Development,² seeking to transform China into the world's leading IP power.

The efforts of the Chinese government to build China as an IP power have also been noticed internationally. For instance, Premier Li Keqiang highlighted China's efforts in stimulating entrepreneurship and innovation at the Summer Davos 2017 in Dalian. An article in *The Diplomat* commented on Premier Li's speech and other progress that China has made in intellectual property, stating that "overall, through a mix of market incentives and political pressure, China appears to be emerging as a global IP leader" (Zukus 2017).

However, people who have participated in multilateral IP negotiations generally find Chinese representatives very quiet in most fora.³ They are generally very cautious about what they say and have been reluctant to make coalitions with other parties to propose any substantive IP agenda. This picture of China behind the scenes in international negotiations stands in clear contrast to its apparent ambition to be a leading IP power.

¹ The State Council of China 国务院 [guowuyuan] issued Outline of the National Intellectual Property Strategy 国家知识产权战略纲要 [Guojia Zhishichanquan Zhanlue Gangyao], No. 18 2008 国发 (2008) 18 号 [guofa (2008) 18 hao]. English version of the Outline is available at http://www.gov.cn/english/2008-06/21/content_1023471.htm.

² Innovation-driven Development 创新驱动发展 [chuangxin qudong fazhan] was concept first proposed in Section 4.2 of the Report of the 18th Chinese Communist Party (CCP) National Congress. The Report is available at <http://en.people.cn/102774/8024782.html>, last retrieved on January 28, 2018.

³ For instance, minutes of speeches by Chinese representatives at the WTO TRIPS Council meetings show the cautiousness of the Chinese government in expressing its positions on the disclosure obligation (Chapter 4.3).

More broadly, China has been perceived as “increasingly assertive” in its international engagement in many issue areas over recent years, in particular in territorial disputes and in financial issues (Chen, Pu, and Johnston 2014, Christensen 2011, Yahuda 2013). Such assertiveness is further linked with the discourse surrounding the “rise of China” and its possible threat to the western world. Intellectual property is rarely mentioned as an example to illustrate the “assertiveness” of China.

When, in 2011, SIPO received more patent applications than any other patent office in the world and continued to do so, I began to question why China was not more active in international IP rule-making. At this time, I was working at the Intellectual Property Development and Research Centre of the State Intellectual Property Office of China (IPDRC), a position I occupied from 2009 to 2013. I participated in a research project which examined the new trend of international IP enforcement, and on China’s strategy to react to the Anti-Counterfeiting Trade Agreement (ACTA) (Cheng 2011, Mao, Yang, and Cheng 2013). I also participated in research concerning domestic IP regulation in China, specifically how to design indexes for provinces to better comply with the IP targets set at the national level. This experience of working with an IP regulator in China has given me a thorough understanding of IP-related issues in China as well as how the Chinese government promotes IP applications and protection domestically and internationally.

The different faces of China concerning intellectual property, in particular, the contrast between its domestic creations of large numbers of IP applications while keeping a low profile in international meetings, has led me to write this thesis. It is the puzzle that I encountered at SIPO that set me on the path of a detailed investigation of the different dimensions of China on intellectual property which consequently developed into this thesis which offers a detailed and holistic treatment of the puzzle of China’s performances on IP. Next section will discuss these dimensions.

1.2 Four dimensions to approach China’s international IP performance

This Ph.D. project was inspired by the controversial interpretations of China’s performance in intellectual property (Figure 1). One can isolate four core dimensions or views of China’s IP performance — intellectual property as part of a rising geopolitical China, a cautious China engaging with western IP systems, an IP rule-making China, and a market transforming China. There have been numerous data to support each of the four dimensions separately. However, when putting these dimensions together holistically, one can see some inconsistencies concerning what the data indicates. For instance, the proposition that China is, or should be, a global IP power often emphasizes China’s regulatory power and oversight of IP, but the evidence supporting this proposition is always based on its market power in IP registration (Section 1.4.4.2). Application numbers on their own do not necessarily support the claim that China is a regulatory power in IP.

For another instance, “becoming an international IP rule-maker” has been consistently proposed by Chinese IP regulators,⁴ but there is little evidence to support the view that China has taken a role as a “rule-maker”. Instead, the examples given are more about extending IP cooperation with other states and international organizations than about making new IP rules.

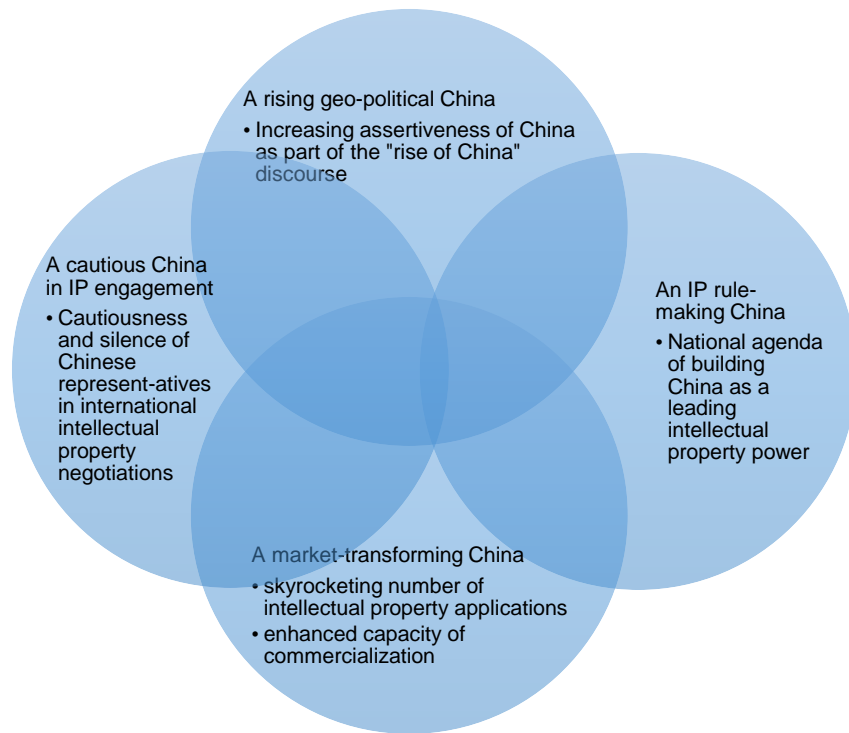


Figure 1 Four Dimensions to Understand China’s Role in the International IP System

This thesis is designed to provide a holistic interpretation of what appears to be the different, and at times inconsistent, dimensions of China’s international IP engagement. In particular, I examine the tension between China’s rising market power and its moderate regulatory power, as well as

⁴ State Council of China issued Several Opinions on Accelerating Building China as an IP Power under New Conditions 国务院关于新形势下加快知识产权强国建设的若干意见 [guowuyuan guantu xinxiangshixia jiakuai zhishichanquan qiangguo jianshe de ruogan yijian] (Opinions on IP Power Building (2015)), No.71 2015 国发 (2015) 71 号 [guofa (2015) 71 hao]. These opinions are available at: http://www.gov.cn/zhengce/content/2015-12/22/content_10468.htm. In 2016, the State Council issued another notice to disaggregate tasks mandated by the above opinions. It is worth noting that “知识产权强国 [zhishichanquan qiangguo]”, the primary target for these opinions, has been translated into English either as “IP power” or “IP powerhouse”. Considering the goal for China was not only running IP numbers, but also “promoting the making and improvement of international IP rule-making, and constructing fair and rational international economic order” (Section 1.2), this thesis adopts the translation of “IP power”. The “new conditions” in its title refer to (1) the economic growth in China presents a “new normal” – the economic growth rate dropped from double-digit to 6-7% (Zhang and Chen 2017); and (2) the two centenary goals for the rejuvenation of the Chinese nation proposed at the 18th National Congress of the CCP in 2012 – first building China as a moderately prosperous society in 2021, a centenary after the CCP establishment, and secondly building China as a prosperous, strong, democratic, culturally advanced, and harmonious modern socialist state in 2049, a centenary after the PRC establishment.

China's intention to be a rule-maker and its cautiousness in actual engagement with international IP rule-making.

Evidence for China's rising market power in intellectual property is clear: statistics show the rising number of IP applications and enhanced commercialization. Its increasing geopolitical importance has been well analyzed in the literature. However, China's genuine intention to be a rule-maker is hard to verify, and the external interpretation of this intention is sometimes misleading. This thesis will focus on China's tangible behavior, which is conceptualized as China's engagement at the multilateral, plurilateral, and bilateral levels in specific areas of intellectual property (see the case studies in Chapter 3-7). The exploration of China's behavior concerning intellectual property provides a better understanding of the other dimensions indicated in Figure 1. In the discussion following the case studies, I will link the findings from the cases to these other dimensions. This approach will provide a holistic picture of why there are different interpretations of China's international IP engagement. First, the contrast between China's actual engagement (which is externally perceived as not willing to take leadership) and its skyrocketing IP application numbers stimulates the question — to what extent does Chinese market power in intellectual property translate into regulatory power? Secondly, my exploration of China's ambition to be the world's leading IP power along with its perceived low-profile engagement may help to understand some of the tensions in its domestic politics. Such tensions have to be managed by all major powers. Thirdly, China's international IP engagement is one of the concrete examples of how assertive China actually is. Therefore, I hope that my study into China's international IP engagement may provide some evidence relevant to claims about a rising China.

1.3 Research questions key concept and arguments

1.3.1 Research questions

The research questions of this thesis are:

- (1) How has China engaged with the international IP system?
- (2) Does China's international IP engagement indicate that China has already transformed into an international IP rule-maker? and
- (3) What underpins China's international IP engagement?

The first research question examines how China behaves and has behaved in the international IP system. By using "engagement" as the operational concept, this question strives to capture comprehensively and in detail China's interaction with other states and international organizations on IP issues. The first research question drives the empirical exploration of this thesis. China's engagement is explored by this thesis by way of case studies. I have three thematic cases on China's international IP engagement in geographical indications (GIs) (Chapter 3), the requirement to disclose the source of genetic resources in patent applications (the disclosure

obligation) (Chapter 4), and intellectual property and standardization (Chapter 5). I also have two cases on China's international IP engagement at the bilateral level (Chapter 6) and plurilateral and multilateral levels (Chapter 7). My findings from these empirical analyses provide the basis for answering the second and third questions.

The second research question focuses on the role of China in the international IP system. This question is also reflected in the title of this thesis. The answer to this question is based on engagement (the first research question). One way to explain the relationship between rule-taker/rule-maker and engagement is to draw on the wisdom from traditional Chinese philosophy, in particular, the complex relationship between the name 名 [*ming*] and the actuality 实 [*shi*].⁵ From this perspective, rule-taker or rule-maker are the names given to certain actors; these names are generated from and defined by their actual behavior, specifically the way they engage. Though the primary relationship between the name (rule-taker or rule-maker) and the actuality (engagement) is compatibility because one should behave like a rule-maker to be called a rule-maker, it is not a static relationship. The actuality is constantly changing while the name changes less. Therefore, the exploration of engagement is an exploration of actuality, which will enable one to judge whether the titles of rule-taker/rule maker or other names (e.g. rule-shaker or rule-breaker) can be given. Since the literature review and the historical review (Section 1.4.4 and Chapter 2) of this thesis have already indicated that China has been a rule-taker in terms of intellectual property, this question adapts the title to emphasize the rule-making aspect.

The third question asks why China engages the international IP system in the way that it does. This “why” question focuses on the intentions behind China's engagement (the first research question). These intentions are explored at different levels of specificity: strategies → principles → propositions (from more specific to less specific). The analytical framework of strategies and principles is adapted from the analytical concepts of actors, principles, and mechanisms as discussed in *Global Business Regulation* (Braithwaite and Drahos 2000). More fundamentally, these strategies and principles point to two different motivations — either China's behavior and its strategy are responses to external pressure, or China is acting of its own accord. The question is whether China's international IP engagement operates within the confines of US strategy or whether it is part of a distinct Chinese grand strategy (Section 1.3.3).

The role of China in international IP regulation (research question 1) and China's motivation for China's international IP engagement (research question 3) have different focuses. While the role

⁵ “In ancient China, philosophical inquiry concerning language and logic focused on the use of ‘names’ (*ming* 名, also terms, labels, or reputation) and their semantic relations to ‘stuff’ (*shi* 实, also objects, features, events, or situations)” (Fraser 2016). There are also Chinese idioms reflecting this relationship such as 名至实归 [*mingzhishigui*] which describe the name or title deserves its actuality.

played by China (rule-maker or rule-taker) demonstrates the outcomes of China's engagement and is determined by power contestation, the motivation aspect provides a reason to understand why China engages in a certain way and what the possible constraints on its engagement are.

Normally, one can equate rule-making with grand strategy and rule-taking with being trapped or being under hegemonic domination. It is less clear in China's case. For instance, the amendment of the major IP legislation in 2000 to comply with the requirements in the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) on the surface appeared to be rule-taking behavior, but it was also the case that the Chinese government strategically used the external pressure of compliance to push its domestic legal reform. From November 1999 to December 2011, the Office of the State Council Leading Group on Sorting-out Legislation and Regulations sorted out 1,150 pieces of legislation, administrative regulations and ministerial rules into categories of "to remain, to amend, to abolish or to re-draft". Three IP laws were among the nine major laws that were amended. As pointed out by Zhang Yuqing, the Chinese negotiator who participated in the negotiations regarding China's accession to the WTO, this sorting-out was initiated at the discretion of China and not under pressure from the US (Zhang 2011, 7-12). Zhang's comment indicates that rule-taking can be strategic and can be part of a grand strategy. In the conclusion of this thesis, I will analyze the nuances of these two dimensions informed by the case studies, and in particular how China strategically modeled IP rules from western countries and whether this necessarily indicates China is an IP rule-taker.

In Sub-section 1.3.2, I will analyze engagement as the operational concept for this thesis, in particular, to answer the first research question. In Sub-section 1.3.3, I will raise two propositions to answer the third research question concerning motivation. As the second research question is based on empirical findings of this thesis, it will not be specifically addressed in the introduction.

1.3.2 Engagement as the operational concept

Engagement, in this thesis, refers to an actor's conscious and purposive interaction with an international system. By introducing the concept of engagement, this thesis is able to take an inductive approach, collecting seemingly scattered pieces of China's engagement with IP to see whether the pieces do or do not fit into a bigger jigsaw — some of the pieces may indicate both identities of rule-taker or rule-maker or neither. This approach, therefore, avoids first setting the criteria of rule-taker or rule-maker and then comparing and registering behavior of an actor under either identity — a deductive approach that may neglect inaction (as a result of the careful calculation) and a wide range of other types of behaviour if it is not identified in the first place.

Engagement as a concept is focused more on process than outcomes. An analysis of the engagement process provides a better understanding of the rationale underpinning a decision of an actor and the context to make a certain decision. Though China failed to promote a rival

standard in the area of Wireless Local Area Network (WLAN) (Chapter 5.3), the perspective of engagement enables observation of China's efforts and the obstructions to those efforts that came from the US. In other words, not successfully promoting a rival standard does not mean there has been no attempt and ambition to create one. The process-based exploration of engagement reveals China's efforts even though the outcome was not positive. Though it may not necessarily make a meaningful contribution to the outcomes of international IP regulation, it is part of the actuality that enables outsiders to see what China has done.

Engagement is cautious and purposive behavior. In this thesis, the purpose of China's engagement is to participate in the global governance of an issue. Finkelstein (1995, 370-371) defines the behavior of global governance as including:

Information creation and exchange; formulation and promulgation of principles and promotion of consensual knowledge affecting the general international order, regional orders, particular issues on the international agenda, and efforts to influence the domestic rules and behavior of states; good offices, conciliation, mediation, and compulsory resolution of disputes; regime formation, tending, and execution; adoption of rules, codes, and regulations; allocation of material and program resources; provision of technical assistance and development programs; relief, humanitarian, emergency, and disaster activities; and maintenance of peace and order.

From an actor-centric perspective, this list can also be interpreted as the various ways that an actor can engage in global governance. Accepting this broad scope of global governance means accepting a broad scope of engagement. Though Finkelstein (1995) has provided a long list of behavior which can be categorized as global governance, this list is still not exhaustive. The open-ended list also indicates that this thesis should take an inductive approach to exploring new forms of engagement by examining various cases. In Chapters 6 and 7, I aim for an extensive-as-possible account of China's transnational and international interaction at the bilateral, plurilateral and multilateral levels. This process of discovering how China engages in international IP regulation is valuable because it may reveal a broader range of behavior of emerging participants in global governance than the behavior of global governors including creating issues, setting agendas, establishing and implementing rules and evaluating outcomes (Avant, Finnemore, and Sell 2010).

Engagement is an actor-centric concept. With the Chinese state as the primary actor to analyze, engagement enables a more nuanced understanding of the dynamics of China and other actors (including other states, intergovernmental organizations, and international organizations). By investigating who actually participates in international negotiations and cooperation, this thesis also identifies various sub-state actors that represent China in international IP engagement and non-state actors who have established transnational networks with their counterparts in other states. The examination of the behavior of sub-state actors bridges domestic IP regulation and

international IP engagement, in particular how regulatory competition and regulatory neglect (Chapter 8.2) can impact China's international engagement.

The actor-centric approach implied by the concept of engagement does not mean China is viewed in isolation from the international IP system. Instead, engagement focuses on interaction and provides a lens to observe the continuous dynamics between China and international IP fora, as well as between China and other states. It is not a once and for all deal, but many repetitive interactions starting from small steps. Over the long term, mutual understanding and trust are gradually developed through continuous engagement. Examples include China's bilateral engagement with the US (Chapter 2.4.1) and the World Intellectual Property Organization (WIPO) (Chapter 7.2).

Engagement is also the starting point to analyze the strategies behind China's behavior concerning IP. These strategies include modeling and balancing (Chapter 10). Since the strategies are purposive, they enable a closer look at the intentions of China in its international IP engagement. In this thesis, such intention is manifested as the principles to which China adheres.

1.3.3 Proposed arguments

1.3.3.1 Principles and strategies for China's international IP engagement

China's international IP engagement is guided and bounded by various principles to which China simultaneously adheres (Figure 2). China took strategies of modeling and balancing to implement these principles or minimize their potential conflicts. Modeling is a strategy that China has used in all three thematic cases. In the case of GIs, China modeled the US and the EU legal mechanisms respectively, at a protection level of TRIPS. In the case of the disclosure obligation, China actively learned from proposals submitted to the WTO and WIPO by the megadiverse countries⁶ and promulgated domestic legislation which modeled these proposals before any international agreement is concluded on this issue. In the case of IP and standardization, though China was trying to promote rival standards, the strategy of using standardization to gain or maintain competitive advantages itself resulted from active learning from the US and the EU. Modeling leads to compliance and institutional isomorphism, which guided China to take similar positions to developed countries in many IP issues.

Balancing is used by China to address the inconsistency of various principles. It includes three specific strategies: dissembling, reticence and the foreign policy chessboard. In addition to reconciling the inconsistency of principles, dissembling leads to constructed inconsistency of

⁶ Megadiverse countries refers to counties that are rich in biological diversity and associated traditional knowledge. In international negotiations, the megadiverse countries are coordinated by the group of Like-Minded Megadiverse Countries (LMMC) to promote their priority related to the preservation and sustainable use of biodiversity. See Chapter 4.1.

China's positions at different fora, while reticence and the foreign policy chessboard weaken its discursive power in the international policy debates on intellectual property.

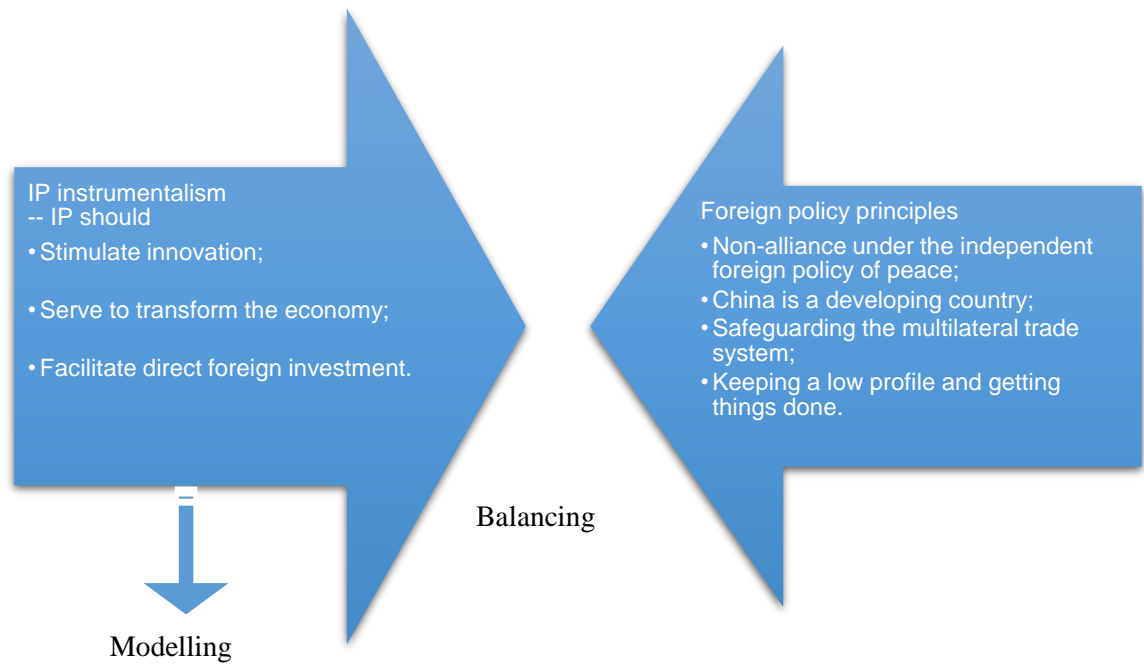


Figure 2 Contesting Principles China Adheres to in Its International IP engagement

1.3.3.2 The role of China in international IP regulation

I have drawn conclusions about the role of China from the case studies. The cases show variations of China's role, even within the area of intellectual property, due to the structure of international power contestation and the scale of China's preference to be a rule-maker. Table 1 illustrates the key findings from thematic cases of this thesis.

Table 1 Findings from the Thematic Cases

		Whether the US and the EU agree	
		Yes	No
China's preference for a rival standard	Low	TRIPS: rule-taker	GIs: active modeler
	High	IP and Standardization: attempted to be a rule-maker but failed	Disclosure obligation: modeler of rules from elsewhere

For the time being, China has not yet developed into an international IP rule-maker. The US is still powerful enough to block China's initiation of rival rules. Data from China's international IP

engagement also shows China's role in international IP regulation is more nuanced and complicated than a binary categorization of "rule-maker" or "rule-taker".

In Table 1, the term "modeler" is used because China used the strategy of modeling (Chapter 10.2), which demonstrates autonomy in adapting standards from others to meet its own demands. In the case of modeling, China may associate with other states to promote a standard it has modeled. However, the motivation for rival rule-making is low in cases of modeling and cannot qualify China as a rule-maker. This table demonstrates that 15 years after TRIPS, China has not yet developed into an international IP rule-maker (See more detailed findings from case studies in Table 18).

1.3.3.3 Two propositions for China's motivation

The third research question of this thesis on the motivation underpinning China's engagement is essentially a "why" question. I discuss two broad propositions to understand why China engages the international IP system in certain ways.

Proposition 1. China is trapped by IP rules set by the hegemonic power of the US (the China-trapped proposition).

Proposition 2. China is engaging in the international regulation of intellectual property to achieve its grand strategy of technology catch-up (the grand strategy proposition).

These broad propositions can be linked to the larger discussion on the rise of China. For instance, the China-trapped proposition is a concrete example of China playing the US' game (Steinfeld 2010) in the area of intellectual property. Though commentators may not agree on whether China does or does not have one (or more than one) grand strategy, the grand strategy proposition itself is not new (Shih and Huang 2014, Buzan 2014, Fallon 2015, Stanzel 2017). The second proposition provides a specific application of this broad narrative to intellectual property.

These two propositions provide the fundamental explanation of the motivations for China's international IP engagement. The history of China's international IP engagement shows China was trapped in the early stage of its engagement (Chapter 2). The case studies of this thesis provide evidence supporting both propositions relating to China's international IP engagement. From a chronological perspective, a grand strategy of utilizing intellectual property to achieve technology catch-up emerged after China acceded to the WTO, in particular after its National IP Strategy in 2008. For the time being, it is still too early to evaluate whether this grand strategy will succeed or not.

1.4 Literature review

This is an interdisciplinary study broadly related to law and international relations (IR). In the legal discipline, there has been systematic research both on international IP law (Bently and

Sherman 2014, Abbott, Cottier, and Gurry 1999, Frankel and Gervais 2016) and Chinese IP law (Zheng 2003, Wu 2009b, Liu 2010). Relevant IP laws will be reviewed and discussed in the case studies (Chapters 3-7) rather than in this section. As indicated in its title (rule-maker/rule-taker), this thesis takes a processual perspective that focuses more on the legislative process domestically and the treaty negotiations internationally than on the established laws/rules. Therefore, the literature review will primarily focus on the literature in international relations in order to sharpen the understanding of the geopolitical dimension which influences China's international IP engagement.

1.4.1 The rise of China: a revisionist or status quo power?

As mentioned in Section 1.2, the external perception that China is a rising power stems from the presumption that China is becoming increasingly assertive in its international engagement on many issues. The literature on the rise of China, in general, is important to demonstrate this presumption. This thesis contributes to an understanding of this emerging geopolitical theme about China.

Following the realist tradition of international relations theory, power transition theories depict a scenario in which challengers seek to establish a new international order with their increasing power (Kugler and Organski 1989, Organski and Kugler 1981, Gilpin 1983, Kim and Morrow 1992). The focus of the power transition theory is whether a peaceful power transition without wars between great powers is possible. Recently, researchers have tended to replace the power transition theory with the power shift theory (DiCicco and Levy 1999, Schweller and Pu 2011, Zangl et al. 2016). The key difference is that the power shift theory gives up the assumption of the complete transition of power and instead focuses on whether the emerging powers have gained the power lost by those in a position of former dominance.

Historically, the UK was the dominant power, but the US is now the dominant power in the world. Entering the 21st century, some US commentators began to fear that the US will no longer be the unipolar power of the world because the rest of the world is catching up (Layne 2006, Zakaria 2008, Layne 2012). Because of its remarkable performance in economic growth and development, there has been a debate about China's rise and US' decline (Itzkowitz Shiffrinson and Beckley 2013, Beckley 2012, Brooks and Wohlforth 2016). The framework of power transition/shift theory is the major approach adopted by US IR scholars to analyze the implications of the rise of China. As highlighted by Schweller and Pu (2011), these theories, however, do not tell US scholars "how multipolarity will arrive and whether emerging powers will accept or resist the inherited Western order".

This body of literature proposed various scenarios for paths of the power shift on the basis of different assumptions about the nature of Chinese power. The debate went on and on because of

disagreement as to whether China is a “status quo power” that accepts the existing ordering principles of the international system or a “revisionist power” that seeks to undermine the established international order so as to increase its power in the system (Johnston 2003, Chan 2004, Kastner and Saunders 2012, Feng 2009, Liang 2007, Swaine 2016). With China being the second largest economy in the world and overtaking the US in various areas, the revisionist portrait of China has become the prevailing view in US IR scholarship. This revisionist view further predicts, according to the power transition/shift theory, that China will exert greater influence to reshape the world order with its rising power.

Nonetheless, some US IR scholars seem to be more optimistic about the rise of China not because of the nature of Chinese power, but because of the inclusiveness of the liberal international order that the US has built. Ikenberry (2008) argues the rise of China does not necessarily trigger a wrenching hegemonic transition because China faces an international order that is open, integrated and rule-based, an order that is fundamentally different to those confronted by rising powers in the past. He further argues that although the unipolar moments for the US are over, the Western order can accommodate rising powers. With a growing commitment to economic liberalization, China will eventually merge into this Western liberal order. However, according to the democratic peace theory (Minch 2011), there is a problem that universal and perpetual peace can only be reached among democratic states from the liberal point of view. China is an alien according to the “democratic peace” standpoint because the Chinese authoritarian regime is presumed to behave irresponsibly (Pan 2004).

There are two effects of research on the rise of China based on the power transition theory. Within the US, relevant research has consistently informed foreign policy decision making. The debate on the nature of Chinese power transformed into a policy debate on the proper strategies that the US needs to confront a rising China, including either containing or socializing China (Lieberthal 1995, Shambaugh 1996, Christensen 2006, Holslag 2006, Johnston 2003).⁷ These proposals were somewhat speculative, not really engaging in detail with China’s agenda (Legro 2007), but they nevertheless guided practices like the US returning to Asia under President Obama.

The literature (including non-scholastic) on the rise of China has also resulted in a discourse on the new assertiveness of China in recent years (Chen, Pu, and Johnston 2014, Christensen 2011, Yahuda 2013). Though this claim of assertiveness is difficult to test, it has grown in popularity because of the focus on China by the mainstream media and the power of the internet in spreading

⁷ The strategy of socialization has also been practiced by the Association of Southeast Asian Nations (ASEAN) countries through their utilization of regional forum/fora. Ba (2006) raises the question of whether regional forum initiated by less powerful states are able to socialize with the most powerful regional player. This strategy has been demonstrated as a failure by the South China Sea disputes (Chen and Yang 2013).

the misperception (Johnston 2013). As pointed out by Jerdén (2014), China's new assertiveness is "not an objectively true phenomenon external to this discourse", but it is attractive to the US because it provides a justification for the continuing existence of significant US power in East Asia.

The rise of China is the most important background knowledge for this thesis, and the power transition/shift theory is the major analytical framework with which to approach this topic. The revisionist/status quo debate sets a foundation for the two propositions for China's international IP engagement: if China is a revisionist power in international IP regulation, it will propose its own agenda for international IP regulation; but if China remains a status quo power, it will follow the international IP rules set by the US. Although the revisionist/status quo differentiation is a convenient way to categorize China's position, the problem of applying power transition/shift theory to the US-China power dynamics should not be ignored. As Pan (2004, 316) pointed out, the mainstream US IR literature tends to construct China as "otherness":

It seems clear that neither China's capabilities nor intentions really matter. Rather, almost by its mere geographical existence, China has been qualified as an absolute strategic "other", a discursive construct from which it cannot escape. Because of this, "China" in US IR discourse has been objectified and deprived of its own subjectivity and exists mainly in and for the US self.

It might be argued that this body of literature is not actually about the rise of China, but about how US IR scholars perceive the rise of China, which might be a misperception. This thesis develops its two propositions by exploring the intentions of China from an insider's perspective. Nonetheless, the propositions of this thesis are still closely related to and informed by the body of literature mentioned above. First, for the proposition that China is "trapped", the power transition/shift theory explains who would trap China, for what reason, and how — the US wanted to tame China as a status quo power to support the liberal international order through socialization and coercion. Considering that IP-related rules are an integral part of the international liberal economic order, it made sense for the US to follow the power transition/shift theory and to get China to develop a comprehensive domestic IP system. Secondly, the status quo/revisionist positions are two basic options for China's grand strategy. Though the status quo/revisionist identifications are polarized, they are useful concepts for summarizing the basic positions that China might adopt when confronted by the existing international IP order. These two concepts will be used in the review of the literature on China's role in global governance.

1.4.2 China's participation in global governance

Scholars researching global governance/international regulation of specific issues began to notice the role of China in recent years. The literature on China's participation in global governance extends to areas like the global governance of trade (Liang 2002, Potter 2001, Wang 2004,

Halverson 2004), health (Chan, Lee, and Chan 2009), finance (Walter 2010, Ren 2016, He 2016) and food security (Duggan and Naarajärvi 2015). The literature on China's participation in global governance often takes an inductive approach by observing China's behavior first without presuming an identity for China either as a status quo power or a revisionist power.⁸ Compared with the power transition/shift theories, this body of literature relies more on the empirical data and reaches more specific conclusions about the impact of China on a specific international regime, in particular in terms of transparency and accountability.

Global Governance and China: the Dragon's Learning Curve (Kennedy 2018) comprehensively examines the role of China in global governance in various issue areas and concludes that the role of China varies with the issue areas that it engages — China is neither purely a savior nor scofflaw of the global economic system, and while China is a defender of the status quo in some areas, it is a reformer in others, and occasionally a revisionist in still other spheres. The articles in this book have important implications for this thesis in terms of research methodology — considering the various roles that China played in global governance in different issue areas, a case study method is necessary to investigate China's role in international IP regulation.

1.4.3 International IP regulation

The early literature on intellectual property and TRIPS in particular focused on the dominant role of the US multinationals and the US-EU axis of power, explaining this domination in terms of concepts like mechanisms of coercion, and forum shifting (Drahos 1995, Drahos and Braithwaite 2002, Gervais 2003, Sell 2003, Helfer 2004, Sell 2010a, b). Recent research has begun to distinguish the role of the emerging powers and other developing countries in the area of intellectual property. For instance, Drahos (2012) distinguished China's interests in the patent system from those of weaker members of the G-77. This body of literature treats China as a member of the rising/emerging powers. Abbott, Correa, and Drahos (2013) proposed three roles for emerging powers in the international patent system: regulatory innovators, adaptive managers of the existing standards, and modelers of standards set elsewhere. Among the three roles of the emerging powers, researchers expect that the emerging powers are more likely to assimilate and adapt to international IP standards set by the developed countries than to become regulatory innovators reforming the international IP order (Benoliel and Salama 2010, Morin et al. 2017, Yu 2014, Drahos 2012).

In summary, the current literature suggests that the emerging powers will maintain the status quo in the international IP system and so will not oppose the fundamentals of the global IP system.

⁸ It is worth noticing that revisionist/status quo narrative is occasionally used in the analysis of China's participation in the global governance of specific issues (Emmers 2007, Walter 2010).

Still, they seek greater influence, aim to maximize flexibilities within existing IP fora, and attempt to safeguard their regulatory sovereignty. But the current literature fails to analyze the nuances of the roles that the emerging powers play within the existing international IP system.

Another problem with the literature around the emerging power perspective is it fails to distill the unique role of China in international IP regulation. Conclusions about the role of China in the international IP system are often drawn after an examination of the emerging powers (with Brazil, China, and India as representatives) collectively. But homogeneity of the emerging powers may not be the case in reality. Hopewell (2015) examined the different paths to power by China, India, and Brazil through the case of WTO, arguing that Brazil and India have assumed a more aggressive and activist position in WTO negotiations than China. This is because Brazil and India have endeavored to exert their power in mobilizing and leading developing country coalitions. Hopewell reveals the complicity and the heterogeneity of the roles played by the emerging powers in the global governance of trade. Their interests in intellectual property among emerging economies may be more diversified than first appears. Although some recent research has distinguished the role of China from that of India and Brazil in IP issues, the comparative approach has not sufficiently explored the domestic politics shaping the Chinese position.

1.4.4 China in International IP regulation

1.4.4.1 English literature

After China's accession to the WTO, there has been increasing literature dedicated to understanding the role of China in international IP regulation. For instance, Yu (2000, 2005) has documented the details of the US-China bilateral IP negotiations and China's compliance with WTO rules. In *The Rise and Decline of the Intellectual Property Powers*, Yu (2011b) follows the recent development of China in international IP regulation. Yu (2011) claims that "China is at the cusp of crossing over from a pirating nation to a country respectful of intellectual property rights", which is good news for US IP rights holders. Yu also warned that the rapid improvements in intellectual property in China would threaten the US because it would reduce their competitive edge over China. This line of argumentation is also common in the non-scholarly literature discussing the rise of Chinese IP power. For instance, Sobon (2017) raised the concern that "given China's determination to advance its IP systems and stature, China may well eclipse the US and Europe as the global center for intellectual property in just a few decades".

Such allegations, though eye-catching, have several problems: (1) China's regulatory power is often confused with its market power. Specifically, China's surging IP application numbers are used to support the claim that it is a power in global IP regulation. (2) The conclusion that China will threaten the West with its increasing IP power is contradictory. If China eclipses the US and the EU in intellectual property, it only means that China plays well by rules set by the West, rules

that the West may yet change. (3) The intellectual property “maximalist” position is only one of the several worldviews of intellectual property and cannot be considered a universal assumption. (4) As occurs in US IR scholarship, this body of literature constructs China as otherness without understanding what is happening in China.

The last point (constructing China as otherness), has led to the selective use of sources. For instance, Suttmeier and Yao (2004) and Suttmeier, Yao, and Tan (2006) are two of the earliest publications in the English language on China’s effort in proposing its homegrown Wireless Local Area Network (WLAN) standard, WLAN Authentication and Privacy Infrastructure (WAPI),⁹ at the ISO. These articles used the case of WAPI to show China’s “increasing neo-technological nationalism” in which China uses the globalization process to benefit its own national interest. However, these publications did not mention China’s criticism on how the Chinese proposal was blocked through a series of unethical activities (SAC 2006).

1.4.4.2. Chinese literature: memoirs, official stance, and the IR scholarship

In addition to the English literature, there has been increasing research by Chinese scholars publishing in the Chinese language on IP issues. This body of literature provides a valuable first-hand source to track the latest developments by China in its international IP engagement. There are three categories of Chinese literature on this issue. First are the memoirs and documentaries of the US-China IP negotiations. For example, Liu (1998a) and Intellectual Property and Reform and Opening-up in the Past 30 Years Compiling Committee (2008) compiled memoirs of former Chinese negotiators and government officials on the process of establishing the Chinese IP system, on the external pressures China experienced, and the calculations underpinning China’s decisions. Zhao (2003), a memoir written by one of the drafters of the *Patent Law* (1984), carefully documented the internal debates on the patent system in the late 1970s. Wu (2009a) has compiled observations and interviews with those involved in the US-China bilateral IP negotiations in the late 1980s and early 1990s. These memoirs and documentary literature will be used as first-hand resources to investigate the domestic politics underpinning China’s international IP engagement. They compensate for the limited availability of interview data (Section 1.6.2).

The second body of Chinese literature focuses on the policy response of China to the changing international IP configuration. Professor Zheng Chengsi, now deceased, was the pioneer of the first-generation IP law scholars in China. He proposed two strategies for China (Zheng 2006, 3):

What we should do is on the one hand stimulating the companies and individuals to innovate with the high-level protection that the intellectual property system has already provided, and on the other hand to actively promote the creation of new

⁹ WAPI is a WLAN standard developed solely by Chinese entities. For more detailed discussions of the standard see Chapter 5.3.

intellectual property mechanism to protect traditional knowledge and bio-diversity which probably at present China may be at an advantageous position.

In the last decade, these suggestions have been implemented by the Chinese government. In terms of the access campaign initiated by the developing countries, Wu (2006) proposed a positive position that China and other developing countries should actively engage in the international IP fora and promote the coordinated development of intellectual property and human rights.

After China proposed the *Outline of the National IP Strategy* in 2008, Tian Lipu, the former Commissioner of SIPO, published a paper entitled *How to Respond the Change of International IP Rules* which recognizes the “unique” role that China plays in the international IP system (Tian 2008, 6-7):

The trend of multipolarity in the international IP system has provided opportunities and possibilities for China to struggle for more policy space for development and to safeguard China’s national interest and economic security in the making of international IP rules... (China/we) should increase its participation in the international IP rule-making, in order to create a better external environment. (China/we) should reinforce the implementation of the principle that “adjusting to national conditions, active engagement, getting something done, cooperation and win-win”, extend dialogues, exchanges and cooperation in intellectual property issues, and strengthen bilateral, multilateral and regional intellectual property cooperation. (China/we) should promote the international IP rules to change to a more just and reasonable direction, in order to seek more space and time for China’s development and to create a good international institutional environment for Chinese companies to participate in the international market competition.

This quotation illustrates the authoritative position taken by China when it comes to its role in the international IP system. More recently, after China issued the *Opinions on IP Power Building* (2015),¹⁰ Li Jun and Cui Yanxin from the Research Institute of the Ministry of Commerce, proposed three specific strategies for China’s engagement in the reconstruction of international IP rules: (1) to prioritize multilateral fora and strive to strike a balance of interest; (2) to keep negotiation open and actively construct alliances; (3) to strive to dominate bilateral negotiations and to take into account the interests of all parties (Li and Cui 2015). These articles, although published by individual authors, reflect an authoritative view since the authors are regulators themselves. They indicate China’s intention to become an IP rule-maker.

Academic publications have generally followed the above narrative and argument. For instance, Chen (2016b) argues that the domination of developed countries in international IP rule-making has encroached on China’s policy space, and that China should enhance its engagement in the participation of international rule-making, strengthen its negotiating powers and properly increase

¹⁰ See *supra* note no. 4.

its protection level to respond to the change. However, the continuation of the narrative from 2008 to 2016 indicates either (1) China's participation in international IP rule-making has not substantively improved in the last decade, or (2) current research has not fully appreciated the improvements made, if any.

In summary, Chinese literature on China's engagement/participation in international IP regulation takes a China-centric point of view. The positions are stated by authoritative sources, and scholastic positions are in alignment with those of the Chinese government. The authoritative governance positions themselves, however, are ideal proposals of what China should do. Hence this body of literature provides valuable insights into China's position on international IP regulation, but it fails to investigate objectively what China has done and why it engages the international IP regulation in ways that do not meet the ideas proposed.

The third body of literature covers the changing Chinese view on global governance. Chinese IR scholars, influenced by the US IR theories, have tried to rethink the world order and the role of China in global governance. At the beginning of the 21st century, Chinese scholars began to explore international theories from China's own history by proposing a Chinese school of international relations (Zhang 2001, Yan 2008, Zhao 2006, Qin 2007, 2009). In parallel with theoretical exploration, Chinese IR scholars began to focus on strategic studies surrounding the rising powers and international order. In *The Rising Power and International Order*, Men (2004, 141) reviewed the history of China's role in the world order, arguing that "the role of China has changed from a marginalized, passive participation to active engagement and active construction".

The recent scholarship goes beyond assessing the identity of China in the international order (its role as a rising power is undisputable) by focusing on the strategies of the rising powers. For instance, Yan Xuetong proposed an IR theory of moral realism (Yan 2011, 2014b, 2016). Yan (2016) argues that when a state is close to being a dominant power, whether there is morality and the level at which it exists have a significant impact on the outcomes of power contestation, in particular, on the building of international norms. Based on this emphasis on morality, Yan suggests that China should base itself on the values of "fairness", "justice" and "civility" in order to build a new international order.

There is now an increasing focus on the extent to which China has changed its foreign policy guideline from "keeping a low profile" to "striving for achievement" (Yan 2014b). Under the proposed new guideline, China has actively participated in global governance in many issue areas. Typical examples are China's regional Belt and Road Initiative 一带一路倡议 [*yidai yilu changyi*] (Huang 2016, Swaine 2015) and its increasing engagement in international financial regulation by initiating the Asian Infrastructure Investment Bank (AIIB) and the New Development Bank (also known as the BRICS Development Bank) (Sohn 2013, Biswas 2015).

President Xi Jinping has proposed to “create a community of shared future of mankind 构建人类命运共同体 [goujian renlei minyun gongtongti]”.¹¹ This concept has been further elaborated by Wang Yi, the Foreign Affairs Minister of China, as one of the outcomes of the “foreign affairs theory with Chinese characteristics” and “Chinese agenda for international order and the change of the international system” (Wang 2016a, 7). It can be expected that under Xi’s leadership, China will be more active in many aspects of global governance.

Specific to the issue concerning China’s engagement with the international IP system, the above theoretical studies and strategic studies by Chinese IR scholars have had little influence. Chinese IR scholars have not yet been involved in the issue of intellectual property; instead, legal scholars have dominated the research on this topic. Chinese IP law scholars, while familiar with the legal aspect of intellectual property, have not sufficiently studied the power contestation behind the rules. They have proposed more active engagement, including increasing China’s discursive power in the international IP system and setting the goals that China should be an “international IP rule-maker” without providing specific roadmaps to achieve these goals (e.g. Chen 2016). This dominance of legal scholarship in the research on China as an international IP rule-maker leads to potential problems. First, WTO is not only the “golden example of the international rule of law” as some IP law scholars have perceived (Du and Wang 2016) but is also the result of power contestation. Without a perspective from international political economy, legal scholarship cannot fully appreciate the power contestations behind the rules. Secondly, intellectual property in nature is a constructed monopoly (May and Sell 2006), but the legal scholarship takes a more normative approach, internalizing it as rights-based discourse. One can see a split in the policy recommendations of legal scholars. On the one hand, they recommend that China increase its discursive power and actively participate in international IP rule-making; on the other hand, their approach is to recommend moderate increases to the current level of IP protection without waiting for the outcomes of the increased discursive power. With the development of China’s IP applications and its scale of commercialization, this latter recommendation is understandable. Nonetheless, increased IP protection by itself will not lead China to be an international IP rule-maker.

1.4.5 Summary

This section reviewed three major bodies of literature. The implications, shortcomings, and gaps are summarized in Table 2:

¹¹ This term was first proposed by *Working Together to Forge a New Partnership of Win-win Cooperation and Create a Community of Shared Future for Mankind*, statement by the Chinese President Xi Jinping at the General Debate of the 70th Session of the UN General Assembly, New York on September 28, 2015, available at http://www.fmprc.gov.cn/mfa_eng/wjdt_665385/zyjh_665391/t1305051.shtml.

Table 2 Comments on the Literature

Body of literature	Implications for this thesis	Weakness/gap
Power transition/shift and the rise of China	<ul style="list-style-type: none"> -- Power transition/shift theory is the foundation for the US to “trap” China to establish an IP system. -- The status quo and revisionist power are useful concepts for analyzing the positions of China and other emerging powers in on specific issues of global governance. 	<ul style="list-style-type: none"> -- This theory is biased because of its US-centric perspective. --The allegation of the “new assertiveness of China” following this theory lacks evidence.
China's participation in global governance	<ul style="list-style-type: none"> -- China's position in global governance varies on different issues; -- Case study analysis is an appropriate methodology for this thesis -- China's default position in global trade governance is as a status quo power to preserve the WTO; 	<ul style="list-style-type: none"> -- China's international engagement in intellectual property as an issue area has not yet been comprehensively researched -- The conclusions from these empirical studies are very specific and limited to how China engages in that issue, and many of them do not touch on the strategies that China has come up with, or examine why China engages in a certain manner or changes its engagement
International IP regulation	<ul style="list-style-type: none"> -- The history of TRIPS negotiations and post-TRIPS power contestation is the background for China's international IP engagement. -- Regime complexity in the area of intellectual property is the basic context for China's international IP engagement. -- The conclusion that the default position for the emerging powers in the international IP system is a status quo leads this thesis to focus on the rule-making aspect of China. 	<ul style="list-style-type: none"> -- This body of literature often investigates China and other emerging powers as if they behave collectively, and therefore is not sufficient to understand the individual features of China's engagement.
China in international IP regulation (English literature)	<ul style="list-style-type: none"> -- The acknowledgment of the efforts of China in TRIPS compliance directs the focus of this thesis to the rule-making aspect of IP. -- Similar to the literature on the rule of the emerging powers, this body of literature directed this thesis to focus more on the role of China as a rule-maker. 	<ul style="list-style-type: none"> -- This body of literature often confuses the regulatory power and the market power of China, using China's surging IP application numbers to support claims about its power in global IP regulation. -- Self-contradictory in reaching the conclusion that China is threatening the West as a rising IP power. --not up to date with the latest initiatives
China in international IP regulation (Chinese literature)	<ul style="list-style-type: none"> -- The memoirs of the government officials and negotiators who were involved in the early stages of the establishment of the Chinese IP system are valuable to investigate the intention of China in its early IP engagement -- The authoritative resources demonstrate the ambition of the Chinese government to be an international IP rule-maker. -- The Chinese view on global governance provides an insider's view of China on its role in global governance 	<ul style="list-style-type: none"> -- The arguments on the role of China in international IP regulation are homogeneous (aligned with the official position of the Chinese government), and there is no detailed investigation of what China has done. -- The dominance of legal scholarship in researching this topic means this body of literature cannot provide constructive suggestions on a reformist or revisionist perspective on China's international IP engagement.

1.5 Research gap and significance

As illustrated in Table 2, although there have been studies on the topic of the rise of China, its impact on the existing international order, and China's participation in the global governance of various issues (including intellectual property), there has been little research aimed at the possibility of a unified understanding of China's international IP engagement.

This thesis also navigates the literature carefully and critically to avoid the weaknesses of previous studies and incorporate their implications (Table 2). First, concerning the role of China in the international IP system, there are polarized views constructing China either as otherness (by the US IR scholars) or as a leading international IP rule-maker (the Chinese government and scholars' proposal). As discussed in the literature review, both positions have their weaknesses. This thesis tries to take a third approach by reaching its conclusions from the evidence of China's actual engagement. The aim of this approach is to reach a more objective conclusion and avoid the biases of the polarized views identified above. Secondly, although the case study method is a proper approach suggested by the literature on the role of China in global governance considering the variegations of China's behavior on different issues, there has been little empirical research using the case study method in China's international IP engagement. Also, previous studies (in particular research by Chinese scholars) on the role of China often used normative analysis by focusing on the outcomes of rule-making or rule-taking. This thesis develops an interdisciplinary approach that draws on the scholarship of IP law and international relations, focusing on the process instead of outcomes.

Intellectual property has been one of the key issues in US-China bilateral relations, China's WTO accession negotiations and its goals for technology catch-up. This thesis provides a comprehensive understanding of the multi-faceted ways in which China has engaged with the international IP system. Its original contribution lies in showing the nuanced and complicated nature of the strategies that China has employed in this engagement. The findings of this thesis will contribute to the understanding of the "rise of China" through a specific but crucially important case and will add to the understanding of China's role in the global governance of other issues.

1.6 Methods and methodology

The analytical framework of this thesis has been significantly influenced by the macro-micro analysis created by Braithwaite and Drahos in *Global Business Regulation* (Braithwaite and Drahos 2000).

1.6.1 The macro-micro approach

The essence of the macro-micro approach is “to gather data on the most macro phenomenon possible from the most micro source possible - individuals, especially individuals who act as agents for larger collectivities” (Braithwaite and Drahos 2000, 13-14) This thesis adopts this approach to analyze China’s international IP engagement. The micro data in this thesis includes news, interviews and various forms of publications by government officials and academics that demonstrate China’s engagement in a specific area of intellectual property at the bilateral, plurilateral or multilateral level. The macro level issues this thesis investigates are twofold: first are the outcomes of power contestation (whether China has become an international IP rule-maker), and second, what motivates or constrains China in its international IP engagement.

1.6.2 Methodology: document analysis, interviews and case study

1.6.2.1 Case study

Case studies are used in this thesis to understand and compare the variations of China’s engagement in different IP issues. The selection criteria for the cases came from the second research question — only cases that potentially leave scope for China to act as an IP rule-maker were selected. This means that the three major types of intellectual property (patents, trademarks, and copyright) are not thematic cases for this thesis because the historical evidence demonstrates that China has been a rule-taker in these three areas (Chapter 2.4). It follows that this thesis has to venture into other areas to see whether China has exercised some form of leadership over IP rules.

The cases were selected from two perspectives: the first being from the structural perspective, and the second from the perspective of actors. Consideration of the structural perspective raised the question of what the topics of the ongoing WTO negotiations are those China may have a voice. In the *Doha WTO Ministerial Declaration*,¹² two issues concerning intellectual property were:

- (1) the establishment of a multilateral system of notification and registration of geographical indications for wines and spirits (Para 18); and
- (2) the relationship between the TRIPS Agreement and the Convention on Biological Diversity, the protection of traditional knowledge and folklore, and other relevant new developments (Para 19).¹³

Given that China is rich in local specialties and genetic resources, GIs and the disclosure obligation were selected as cases for this thesis. In addition, since China’s first IP proposal at the

¹² Doha WTO Ministerial Declaration, WT/MIN(01)/Dec/1, adopted on 20 November 2001.

¹³ Though Para 17 of the Doha Ministerial Declaration also stresses the importance of intellectual property health, no further negotiations are mandated.

WTO concerned IP and standardization,¹⁴ an issue indicating China's intention to promote a rival standard. Therefore, I selected the issue of IP and standardization as the third thematic case for this thesis.¹⁵

Secondly, consideration from the perspective of an actor led to the question — what has China done in terms of its international IP engagement? After collecting data from various sources, I sorted the specific initiatives or incidences that may demonstrate China's international IP engagement at different fora and then I categorized these fora into different levels. As a result of this categorization, China's international IP engagement are analyzed at the bilateral level (Chapter 6) and plurilateral and multilateral levels (Chapter 7). Figure 3 illustrates the cases chosen for this thesis.

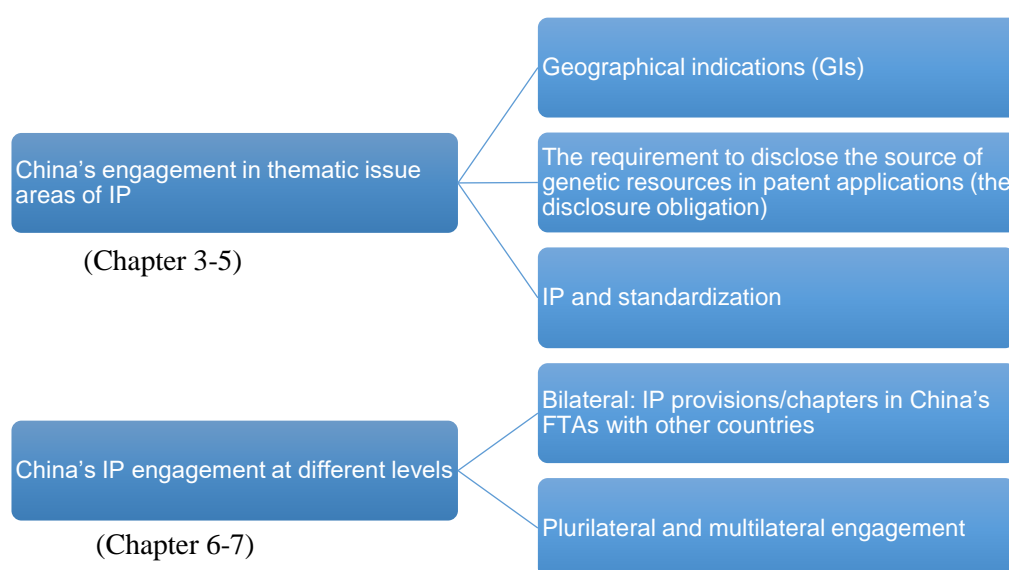


Figure 3 Selected Cases for This Thesis

1.6.2.2 Document review

Document review is the second methodology used in this thesis. The categories of the documents reviewed included:

- (1) Treaties, legislation, administrative regulations, ministerial rules and other policies;

¹⁴ In May 2005, China submitted to the WTO Technical Barriers to Trade (TBT) Committee that intellectual property rights issues in standardization should be included in the 4th Triennial TBT Review (para 74-76, G/TBT/M/35). China further clarified its position in its submission G/TBT/W/251 to the TBT Committee following the meeting. This submission is considered as China's first WTO proposal concerning intellectual property (see Chapter 7.3).

¹⁵ However, in the process of writing this case in Chapter 5, the focus of IP and standardization was changed from China's WTO proposal to the process of China's proposal of its own standards to be adopted by international standard setting organizations.

- (2) Journal articles, books, and other academic publications;
- (3) Research reports released by governments, nongovernmental organizations and research institutes;
- (4) Memoirs in compiled books;
- (5) Transcripts of presentations, press releases, and interviews;
- (6) Online and newspaper articles;
- (7) Live webcasts; and
- (8) Publicly available data by potentially inaccessible informants.

In addition to the documents already mentioned, I used document review as a method to complement interview data (Section 1.6.2.3). Considering some of the key informants were not accessible during the fieldwork, I purposefully searched publications, transcripts of interviews and speeches, and webcasts by and about these key but inaccessible informants. Information from these sources proved a good way to compensate for the lack of interview data. These documents are specifically mentioned as a separate category because the snowball effect here starts from a potential informant and ends with published documents by that informant.

As a native speaker of Chinese, I have searched for first-hand sources in the Chinese language. Many of these sources are summarized and translated into English for the first time. The use of these first-hand resources adds to the novelty of this research.

1.6.2.3 Interviews and complementary resources

I conducted 36 interviews in total during my fieldwork. Some key informants were not accessible. One of my potential informants told me that considering the public debate inspired by the documentary *Under the Dome*,¹⁶ she would not accept my request for an interview. Another incident involving a famous Chinese anchor made Chinese government officials more cautious about their speech at private occasions.¹⁷

For those informants who were accessible, my review of their interview transcripts sometimes indicated little information beyond the official government position (See Section 1.4.4.2). I did have several valuable interviews, but the interview data on its own was not sufficient to develop

¹⁶ *Under the Dome* is a documentary investigating pollution and air quality in China. It was first put online on February 28, 2015 and watched over 200 million times within 48 hours. Given the large-scale debates inspired by the documentary, it was taken offline since March 2, 2015 (Beaumont-Thomas 2015). Considering that interview data was used in this documentary, my perception is that after the *Under the Dome* event, Chinese government officials were warned to treat private interviews more cautiously. I believe this helps to explain the access difficulties that I encountered.

¹⁷ Bi Fujian, an anchor affiliated with China Central Television (CCTV) was internally disciplined because of a video spread widely online. In this video, he made disparaging remarks about Chairman Mao. Someone secretly took this video of him during a dinner and put it online without his permission (Li 2015a). As a result of this incident, Chinese government officials became more vigilant about their speeches on private occasions.

answers to my research questions. As part of a much wider data-gathering process I used the following strategies:

- (1) Referring to conference minutes kept by international organizations. For example, the WTO TRIPS Council has published minutes of its council meetings since its establishment, and the speeches given by Chinese representatives have been well documented. In the case study of GIs and the disclosure obligation, I use these publicly available data to investigate China's position.
- (2) Referring to publications by Chinese government officials. From my previous experience working as an official of SIPO, I know that ministries of the Chinese central government often assign research projects to experts in the field. These projects yield data which were used to provide advice and to solve regulatory problems. Although the full text of the project reports is often not accessible, short versions of such reports are often published as journal articles. Sometimes, the government official representing the assigner of the projects appears as a co-author of the publication. When an interviewee was not accessible, I would go to the *China Academic Journals Full-text Database* looking for publications by the potential informant. Using this method, I targeted several valuable sources. For instance, Wang and Wan (2010), a paper co-authored by an official from the Ministry of Commerce and a GI expert, is the key source of information to identify China's position in its international GI engagement.
- (3) Referring to transcripts of interviews, public speeches and a live webcast of high-level government officials and celebrated Chinese IP scholars on social media to collect relevant data. Due to the effects of *Under the Dome* and the anti-corruption campaign in China, high-level government officials were reluctant to accept my interview invitations. However, 2015 was the year that WeChat (the major Chinese social media) reached 700 million users and the year that official accounts of Chinese governments, research institutions and individuals surged on the WeChat platform. This social network development makes the general practice of IP regulators in China and their international engagement of a department/ministry more traceable. For instance, I saw the full text of a speech given by Dr. Shen Changyu, Commissioner of SIPO, at the 56th General Assembly of WIPO in October 2016 on WeChat, several days after the speech was given. It is used in this thesis as key data to show the relationship between China and WIPO. In addition, for the purpose of expanding influence or increasing transparency, webcasts

are also used to publicize high-profile events.¹⁸ Live webcasts are a key source of data for my analysis of China's position on data exclusivity and the role of IP epistemic communities in China's international IP engagement.

- (4) Referring to the compilation of memoirs on the history of China's IP engagement. As shown in the Chinese language literature on China's IP engagement before TRIPS, these compiled books represent an institutional memory of China's engagement. Since some of the retired officials are not accessible and others have passed away, their personal memoirs have become the major information source concerning China's IP engagement, since the late 1970s.

In most cases, information from these other channels have compensated for the lack of interview data to identify the Chinese position on certain issues; however, the IP provisions in Chinese Free Trade Agreements (FTAs) are the exception. The FTA negotiators were not available for an interview, and there were few publications touching on the position of China on IP issues during various FTA negotiations. The only information available is the negotiated treaties. In Chapter 6, I will focus on a careful analysis and comparison of the text of IP provisions in Chinese FTAs, without analyzing the negotiating process which for the time being remains hidden. Though I have tried to triangulate the position of China through a comparison of various FTAs, TRIPS provisions, and Chinese IP laws, this chapter only analyses the position of the parties when there is sufficient textual evidence.

1.6.3 Timeframe

Chapter 2 of this thesis examines the history of China's international IP engagement from its modern history (1840-1949) to the present day. Findings of this history reveal that China has been an IP rule-taker until its accession to the WTO. Therefore, this thesis mainly focuses on the post-TRIPS period to answer the question whether China has shifted into the role of a rule-maker.

During the writing of this thesis, several major events happened both internationally and domestically. Internationally, ACTA, a major plurilateral treaty initiated by the US failed after its rejection by the European Parliament. After the retreat of the US, the latest version of TPP in 2017 saw the withdrawal of its major TRIPS-plus standards. In order to turn China into a leading IP power, there has been an extensive development of IP policies in China, in recent years (Chapter 2.4.3). These and other events that happened after the commencement of this thesis in 2014 have been consistently incorporated into my discussion in this thesis. One exception is in

¹⁸ *US-China IP Cooperation Dialogue* used live webcast to record the conference for publishing their 2017 report, see Press Release for the Report of US-China IP Cooperation Dialogue 中美知识产权学者对话纪要发布会 [zhongmei zhishichanquan xuezhe duihua jiyao fabui] at <http://zhibo.ifeng.com/video.html?liveid=106004>.

Chapter 6 which concerns the China-Georgia and China-Maldives FTAs. The text of China-Georgia FTA was published in December 2017, less than 4 months from the submission of this thesis, and the China-Maldives FTA was signed on December 2017 but the text had not been published by the end of January 2018. I mention the China- Georgia FTA as one of the Chinese FTAs that includes an IP chapter but do not elaborate on it.

1.7 Synopsis of this thesis

This thesis has three parts: Part One introduces the research question of this thesis, the proposed argument and the method and methodologies, as well as a historical review; Part Two is the body of this thesis, which elaborates five cases to investigate China's international IP engagement with different issues and at different levels; and Part Three analyses China's international IP engagement across three dimensions — actors, strategies and principles. Table 3 shows a detailed breakdown of the three parts.

Table 3 Thesis Outline

Part I Introduction	Introduction	Chapter 1	Research question, literature review, contribution, methods, and methodology
	Historical review	Chapter 2	China's international IP engagement from its modern history
Part II Case studies	International engagement in thematic issues	Chapter 3	Geographical indications
		Chapter 4	Disclosure obligation
		Chapter 5	Intellectual property and standardization
	International engagement at different levels	Chapter 6	Bilateral engagement: intellectual property in Chinese FTAs
		Chapter 7	Multilateral and plurilateral engagement
Part III Discussion and conclusion	Discussion: actors, principles and strategies	Chapter 8	Actors in China's International IP Engagement
		Chapter 9	Principles in China's international engagement in IP regulation
		Chapter 10	Strategies to manage contested principles
	Conclusion	Chapter 11	Conclusion

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Chapter 2 The History of China's International Intellectual Property Engagement

2.1 Introduction

Before investigating China's international IP engagement through specific case studies, this chapter sets the scene for such engagement from three perspectives. I will first review the history of intellectual property in China, from 1840 onwards, with special attention paid to its international engagement (Section 2.2. to 2.4). In Section 2.5, I will discuss the framing of knowledge regulation by the US in ancient Chinese society in the US-China bilateral negotiations. In Section 2.6, I will introduce the recent trends in international IP regulation that provide a broader context for China's international IP engagement.

The modern history of China's engagement with intellectual property is traced in considerable detail in this chapter because China's experience with intellectual property during this period was linked to memories of national humiliation and to early experiences with western models of intellectual property. Both the memories and experiences continued to affect its decision-making on intellectual property in the second half of the 20th century. China's experience with intellectual property has covered a period of close to 100 years and involved conflict, colonialism, rejection, communist models, market opening, reintegration into global capitalism and importation of capitalist models of intellectual property. Whether China has moved beyond being a simple importer is the central question of this thesis.

The history of intellectual property in China can be divided into three periods, based on paradigm shifts. China first introduced intellectual property under duress and from a position of weakness in its modern history (1902-1949), which later shifted to a system of knowledge regulation following the model of the Union of Soviet Socialist Republics (USSR) (1949-1978). Since 1978, China has re-embraced the IP system following the normalization of US-China bilateral foreign relations and China's domestic reform towards a market economy.

The focus of this thesis is the third period. In these four decades (1978-2017), China integrated into the IP system that it had once abandoned. It has vigorously enacted IP laws and regulations, continuously increased its IP standards and facilitated its private actors to use intellectual property strategically. For the purpose of this study, I have divided this period into three stages to provide a detailed context for the case studies used in this thesis. There are two milestones for the subdivision:

- (1) China's accession to the WTO in 2001 when the external pressure on Chinese IP law-making changed from the US pressure to the WTO compliance;

- (2) China's promulgation of the National IP Strategy in 2008 indicated that policies in China had become based on domestic and local conditions rather than being driven by external determinants.

The US framed China as a “born pirate” in the China-US bilateral IP negotiations because China did not have statutory IP law throughout its prolonged history. This framing and its effects will be discussed in Section 2.5. History is always a story of lost opportunities or paths that might otherwise have been taken. As we will see by framing China as a born pirate in the US-China bilateral negotiations, the US discouraged the study of knowledge regulation in ancient China. As a result, China has imported IP regulation and its justifications without developing a deep sense of how they fit with broader traditions of China's ancient past. Intellectual property becomes law without Chinese characteristics.

The globalization of IP regulation is the basic context for China's international IP engagement. The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) represented the true beginnings of the globalization of IP regulation. TRIPS, along with other IP treaties and ongoing IP negotiations set up the context for China's international IP engagement.

Table 4 provides a snapshot of the evolution of the IP system in China over time. It focuses on the major determinants/driving forces for domestic IP rule-making as well as international engagement. These determinants can be internal (domestic) or external (international or transnational), ideological or instrumental. At a macro level, the change of power relations among states, and domestic regime change have influenced the Chinese IP system. For instance, intellectual property was introduced into China in its modern history because China was the subject of colonial exploitation by the Western powers and Japan. After the People's Republic of China (PRC) was established, China became a sovereign state and abolished all the unequal treaties signed by previous governments — including all the IP provisions in these treaties. In addition, the ideological conflict between capitalism and communism was a key determining factor for deciding whether China would remain in the IP system, in its first three decades after the PRC's establishment. Since the IP system is a process of commodification of knowledge, the ultimate stage of capitalism, China defined intellectual property as a capitalist right and abandoned it after the start of the Cultural Revolution.

Period	Major determinants		Level of international engagement	Aim(s)	Process	Outcome(s)
Ancient Chinese society	Domestic politics (emphasizing agriculture and restraining commerce)	--		Government control of production and distribution, as well as expression	--	No IP statute(s) in China
Modern history (1840-1949)	<ul style="list-style-type: none">- Duress by the Western powers;- Part of the reciprocal arrangement to abolish extraterritoriality in China	Bilateral		Minimize property incursions on its sovereignty	<ul style="list-style-type: none">- Bilateral negotiations on trade and navigation treaties with UK, Germany, US, and Japan;- Law-making	<ul style="list-style-type: none">- Regulatory importation of basic concepts of intellectual property;- Major IP legislation established
First three decades of the PRC (1949-1978)	<ul style="list-style-type: none">- Domestic politics (communal ownership of knowledge);- USSR's influence on institutional set-up and ideology	--		Socialist society construction	Establishing patent, trademark regulations at the beginning of the PRC, but soon abolished	<ul style="list-style-type: none">- Completely abandon intellectual property because of its status as a bourgeois right;- Modeling Science and Technology regulatory institution on the USSR
Post 1978	Re-embrace IP (1978-2000)	Bilateral; Multilateral;		<ul style="list-style-type: none">- Attract foreign investment;- Science and technology catch-up	<ul style="list-style-type: none">- Bilateral IP negotiations with the US;- WTO accession.	<ul style="list-style-type: none">- Regulatory importation;- Basic IP laws established.
	WTO compliance (2000-2008)	Bilateral and plurilateral and multilateral		<ul style="list-style-type: none">- Science and technological catch-up;- Economic growth	<ul style="list-style-type: none">- National law-making;- International engagement at different levels.	<ul style="list-style-type: none">- Join multilateral IP treaties;- Intellectual property in bilateral FTAs.
	IP as a National Strategy (2008 onwards)	Domestic policy demand to stimulate innovation	Bilateral and plurilateral and multilateral	Building China as a leading IP power in the world	<ul style="list-style-type: none">- Multi-level engagement;- employing variegated strategies in engagement	Two proposed propositions (the China trapped proposition vis-à-vis the grand strategy proposition) to be tested.

Table 4 Evolution of the Intellectual Property system in China

2.2 The making of modern intellectual property law in China (1840-1949)

Developed countries began to spread IP systems to colonial territories as part of grand empire building projects involving the expansion of their trade and markets (Drahos 2002b, Okediji 2004a). China, as a territory under colonial duress, first incorporated intellectual property in its bilateral treaties at the beginning of the 20th century. Following these bilateral treaties, three copyright laws, four patent laws, and three trademark laws were promulgated in the first half of the 20th century. China's international engagement with intellectual property in its modern history has been, by and large, a process of regulatory importation from different sources. The regulatory importation happened during a period of the waning of China's ancient traditions and values, including those related to the production and diffusion of knowledge.

This section will focus first, on the unequal treaties which drove China to import IP regulation in the early 20th century, and second, on the two paths used by the western powers to influence modern China's IP laws.

2.2.1 Intellectual property in the bilateral negotiation of unequal treaties

Intellectual property was not a prominent issue for foreign business in China until the Shimonoseki Treaty of 1895 which allowed foreign business to engage in manufacturing in China.¹ Following the principle of shared benefits among all colonists who had privileges in China, other western powers also enjoyed the privilege of manufacturing in China. Western businessmen soon found that the trademark was an effective instrument for them to secure their interests in the Chinese market. Meanwhile, trademark disputes between Chinese and foreign businesses, as well as among foreign businesses increased dramatically.

In response to the demand from business, the Western powers began to seek opportunities to push the Qing Dynasty (1644-1912) to legalize trademark rights (Cai and Wang 2005). The chance came in 1902 when the Qing Dynasty was involved in the negotiation of bilateral friendship and commerce treaties. When the Eight-nation Alliance² conquered Beijing in 1900 and assisted the Qing Dynasty to repress its internal riot (the Boxer Rebellion), the eight nations signed the

¹ The early unequal treaties, from the 1840s, allowed the Western powers to trade in open cities and ports in China. Article 6.5 of the *Shimonoseki Treaty* (1895) 马关条约 [*Maguan Tiaoyue*] (1895) provided "Japanese subjects shall be free to engage in all kinds of manufacturing industries in all the open cities, towns, and ports of China, and shall be at liberty to import into China all kinds of machinery, paying only the stipulated import duties thereon". The text of the *Shimonoseki Treaty* (1895) is available at: <http://china.usc.edu/treaty-shimonoseki-1895>, last retrieved on February 1, 2018.

² The Eight-Nation Alliance 八国联军 [*baguo lianjun*] was a coalition of Austria-Hungary, France, Germany, Italy, Japan, Russia, the UK, US, Belgium, Spain and Netherlands who invaded Beijing during the repression of the Boxer Rebellion 义和团运动 [*yihetuan yundong*].

Xinchou Treaty (also known as Boxer Protocol)³ with the Qing Dynasty in 1901. After the *Xinchou Treaty*, the UK, US, Japan, Portugal, and Germany separately negotiated commercial and navigation treaties with the Qing Dynasty, and intellectual property was put on the agenda in these bilateral negotiations. The Qing Dynasty agreed to introduce IP laws in the late Qing Dynasty, after its negotiation with the UK, the US, and Japan of the following treaties:⁴

- *New Commercial Treaty of 1902 between the UK and China* (Mackay Treaty), stipulating provisions on trademarks;
- *Treaty between the US and China for the Extension of the Commercial Relations between Them* (US-China Treaty of 1903), stipulating provisions on trademarks, patents, and copyright;
- *Japan-China Additional Treaty of Commerce and Navigation* (1903) (Japan-China Treaty of 1903), stipulating provisions on trademarks and copyright (Wang 2008).

These three treaties were part of the unequal treaties that China signed with the Western powers. They directly pushed China into IP law-making. Despite being in a weak bargaining position whilst negotiating these treaties, the Qing Dynasty still sought to minimize incursions on its sovereignty. When negotiating the *Mackay Treaty*, the Qing Dynasty made an enormous effort to persuade the Western powers to relinquish consular jurisdiction, on the condition that it would initiate comprehensive domestic legal reform (Zhang 2013a). Eventually, Article 12 of Mackay Treaty provided:

China has expressed a strong desire to reform her judicial system and to bring it into accord with that of the Western nations, Great Britain agrees to give every assistance to such reform, and she will also be prepared to relinquish her extra-territorial rights when she is satisfied that the state of the Chinese laws, the arrangement for their administration, and other considerations warrant her in so doing. (Cassel 2011, 175).

The US-China Treaty of 1902 included exactly the provision on intellectual property as Article 12 of the Mackay Treaty (Bishop 1926). By implementing these treaties, the Qing Dynasty started a legal reform process and formulated laws including the *Copyright Code of Great Qing Dynasty* (1910) 大清著作权律 [*Daqing Zhuzuoquan Lü*] (hereinafter Copyright Code (1910)).

³ After the settlement of the Boxer Rebellion in 1900, the *Xinchou Treaty* 辛丑条约 [*Xinchou Tiaoyue*] was signed between China and the Eight-Nation Alliance. Article 11 of the *Xinchou Treaty* provided that “the Chinese Government has agreed to negotiate the amendments deemed necessary by the foreign Governments to the Treaties of Commerce and Navigation and the other subjects concerning commercial relations with the object of facilitating them”. The text of the treaty is available at: <http://www.deutsche-schutzgebiete.de/boxerprotocol.htm>, last retrieved on February 1, 2018.

⁴ Negotiations with Germany and Portugal were not finalized before the collapse of the Qing Government.

The unequal treaties also significantly influenced the process of legal transplants⁵ of IP laws after the negotiations. Since China was not colonized by one Western power, it did not completely adopt a legal system from one Western. Signing unequal treaties with different Western powers allowed the Qing Dynasty the flexibility to select which jurisdiction it would use as a model for its IP laws. However, as was the case almost a century later, the modeling was born out of pragmatism: it was intended to regain judicial sovereignty.

2.2.2 Modern intellectual property law-making under western influence

After the 1902-1903 negotiations, the Qing Dynasty began to formulate its own IP laws. The legislative process was closely monitored by the Western powers, in particular, the UK and Japan. The Western powers influenced Chinese IP law-making in two ways. First was through the control of an institution — manifested by the trademark legislative process which was manipulated by the UK through Hart's control of the Chinese customs authority. The second path was through legal transplants, mainly from Japanese law, exemplified by the formulation of Copyright Code (1910).

The Qing Dynasty started formulating its trademark law soon after the 1902-1903 negotiation. The first draft of the trademark law, *Draft of Trademark Law*, was submitted by Sir Robert Hart (1835-1911), a British consular official in China who served as the Inspector General of Chinese Maritime Customs for 48 years (Hart and Campbell 1975).⁶ Hart attempted to affiliate the trademark office with the Chinese Customs of which he was in charge.⁷ Not only was this institutional arrangement favorable to the UK, but the draft focused on the protection of foreign trademark holders, confirmed consular jurisdiction over trademark disputes, and discriminated against Chinese applicants in various aspects including the terms of protection and fees (Bai 1994, Cui 1991, Qu 2012). Nonetheless, this draft was resisted by the other Western powers and the Ministry of Commerce of Qing Dynasty (Li 2012). Eventually, the Qing Dynasty was unable to promulgate the trademark law before its collapse in 1910.

The Copyright Code (1910) was the only IP law promulgated by the Qing Dynasty. It was closely modeled on Japanese law. The legal transplants from Japan occurred for several reasons. First, the Meiji Reform in 1868 had set up a favorable model for China. Japan's shared culture and

⁵ “Legal transplants” and “legal transplantation” 法律移植 [*falü yizhi*] were both used in literature of comparative legal studies. This thesis adopts “legal transplants” because it was first used by Watson (1974) who proposed the concept.

⁶ The draft was prepared by Robert Edward Bredon (1846-1918), a British citizen and the then Vice Inspector General of the Chinese Imperial Maritime Customs in the Qing Government.

⁷ According to the draft, the trademark office was to be affiliated to the Chinese Imperial Maritime Customs and two branches of the trademark office would be open in Shanghai and Tianjin to process trademark registrations (Li 2012). This arrangement allowed the Chinese Imperial Maritime Customs, controlled by Sir Robert Hart, to administer trademark registrations.

geographical proximity made it the most convenient source of knowledge for China (Zhang 2014). The process of legal transplants from Japan to China was further facilitated by Chinese students studying in Japan (Wang 2012, Zhu 2012, Xu 2016) and Japanese became the most popular second language in the legal discipline. Japanese jurists were also directly involved in the legislative process. Following their suggestions, the Copyright Code (1910) modeled the structure of Japanese copyright law and it adopted the terminology of authors' rights 著作权 [*zhuzuoquan*] instead of copyright 版权 [*banquan*].

Interference in IP law-making, by the West, declined after World War I. Domestically, the nationalist movement arising from the May Fourth Movement aimed to abolish unequal treaties and consular jurisdiction. However, in the 1920's, Japan became increasingly assertive in interfering in the Chinese domestic policy process (Li 2009).

2.2.3 Summary

The Qing Dynasty introduced IP legislation after its bilateral negotiations with the UK, US, Japan, Germany, and Portugal, at the beginning of the 20th century. Formulating IP laws was part of the Qing Dynasty's legal reform. Interference by Western powers in Chinese IP law-making continued throughout its modern history.

The regulatory importation of intellectual property into modern China has had mixed effects. The imported IP laws/regulations were implemented in a top-down approach, which neglected the local norms concerning knowledge regulation. This lack of connection between Chinese local traditions and IP norms meant that the enforcement of IP legislation became a problem over the longer term. Moreover, since Chinese residents were not treated equally in the judicial procedure due to consular jurisdiction, the imported IP laws were essentially a privilege to protect the interest of Western businesses.

2.3 Intellectual property abandoned as a bourgeois right (1949-1978)

When the PRC was established, China was able to make sovereign decisions on domestic issues for the first time in a century. As a member of the Socialist Camp, China began to follow the model of the on the regulation of knowledge, in particular science and technology. The exclusive rights of patents and trademarks were seen as bourgeois rights 资产阶级法权 [*zihanjieji faquan*] and abandoned because of incompatibility with the communist ideology. This section will briefly review the history of legislation related to intellectual property, during this period, and discuss the impact of this neglected history.

2.3.1 The gradual abandonment of intellectual property

In the first three decades of the PRC, China experienced dramatic social change. After four years of economic recovery (1950-1953), China initiated the socialist transformation from 1954 to 1956. Through public-private partnerships, private ownership in agriculture, handicraft, and capitalistic industry and commerce were partly transformed into socialist public ownership. During this period of economic recovery and social transformation, intellectual property as a proprietary right was first adopted to encourage domestic capitalists to invest in innovation, as well as attract foreign investment and stimulate technology importation. Once the socialist transformation was accomplished in 1956, however, intellectual property quickly lost ground. Furthermore, when the Cultural Revolution started in 1966, various types of IP regulations and laws were completely abolished. The following subsections will provide a more detailed account of the development of the patent, trademark and copyright system.

2.3.1.1 Patents

China issued its *Provisional Regulations on the Protection of Inventors' Right and Patent Right* (hereinafter *Inventors' Right and Patent Regulations* (1950)) in 1950.⁸ The *Inventors' Right and Patent Regulations* (1950) introduced a dual-track system in which patents and inventors' right coexisted. The patent system was designed to attract investment from domestic and foreign capitalists during the period of economic recovery (1950-1953). The term of patent protection could last for three to fifteen years (the exact term was decided by the grant letter). Foreigners were also qualified to apply for patents in China (Zhao 2003).

The inventors' right, a right for inventors to obtain a certificate of attribution, was modeled on the USSR's regulation of science and technology. The inventors' right differed from the patent right. A patent holder had the right to self-exploit and license his or her invention, and such right could be inherited. In contrast, an inventor's right was an honorary title without economic rights: an inventor was issued a certificate acknowledging his/her contribution to the invention, but the right of exploitation belonged to the State.⁹ The patent system was not well utilized at the time of social change, only four patents being granted between 1953 and 1957 (Zhao 2003, 11).

The *Regulations on Remuneration for Inventions* (1963)¹⁰ formally abolished the *Inventors' Right and Patent Regulations* (1950). This brought about the end of the patent system, and only

⁸ Finance and a Committee of the Administrative Council of the Central Government of China 中央人民政府政务院财政经济委员会 [zhongyang renmin zhengfu zhengwuyuan caizheng jingji weiyuanhui] issued the *Provisional Regulations on the Protection of Inventors' Right and Patent Right* 保障发明权与专利权暂行条例 [Baozhang Famingquan yu Zhuanliquan Zanxing Tiaoli] on August 17, 1950.

⁹ See Article 7, *Provisional Regulations on the Protection of Invention Right and Patent Right* (1950).

¹⁰ On November 3, 1963, the State Council promulgated the *Regulations on Remuneration for Inventions* 发明奖励条例 [Faming Jiangli Tiaoli].

inventors' right remained. *Regulations on Remuneration for Inventions* (1963) also clarified that "the ownership of the inventions belongs to the state. Any individual or institution may not monopolize the invention. Any institution (including the collectively-owned institution) in the state can utilize an invention it needs" (Article 23 of the *Regulations on Remuneration for Inventions* (1963)).

2.3.1.2 Trademarks

Trademark policies played an important role during the economic recovery period (1950-1954) (Interview No. 23). In August 1950, China promulgated the *Temporary Regulations for Trademark Registration* (hereinafter Trademark Regulation (1950)).¹¹ In six chapters and 34 articles, the Trademark Regulation (1950) recognized 20-year exclusive rights for trademarks and adopted the principles of voluntary registration and first-to-file. It also provided limitations to the exclusive right. First, trademarks had to conform to socialist ideology. Second, the privilege of the foreign states on trademarks was abolished. Over 597 trademarks in the Anti-Japanese War Base Areas were incorporated into the trademark system, established by Trademark Regulation (1950), and 4,182 trademarks issued by the Nationalist Government were re-registered (Interview No. 23). Meanwhile, 542 trademarks were abolished in 1953 on the grounds that they supported colonialism, feudalism, superstitious thoughts or used foreign names of persons or geography.

The nature of trademarks gradually changed from exclusive rights to a sign of quality. In March 1954, the State Administration for Industry and Commerce (SAIC) changed the principle of voluntary registration to compulsory registration and abolished the exclusive right attached to registered trademarks in Trademark Regulation (1950).¹² Without exclusivity and not being able to be licensed or transferred, trademarks were transformed into an instrument for market regulation. As such, domestic trademarks were to be effective permanently, and trademarks belonging to foreign enterprises were to be effective for ten years with possible renewal for another ten years.

¹¹ State Council of China issued the Temporary Regulations for Trademark Registration 商标注册暂行条例 [Shangbiao Zhuce Zanxing Tiaoli] on August 28, 1950.

¹² Unregistered trademarks were allowed to use in the initially after the PRC was established. For instance, the SAIC issued *Guidelines for Un-Registered Trademarks* 关于未注册商标的指示 [Guanyu Weizhuce Shangbiao de Zhishi] and *Administrative Measures on Unregistered Trademarks* 未注册商标暂行管理办法 [Weizhuce Shangbiao Zanxing Guanli Banfa] in 1954. The principle of compulsory license, was introduced later by the SAIC *Opinions on Implementing Comprehensive Registration on Trademarks* 中央工商行政管理局关于实行商标全面注册的意见 [Zhongyang Gongshang Xingzheng Guanliju Guanyu Shixing Shangbiao Quanmian Zhuce de Yijian] in 1957. These SAIC opinions stipulated that trademarks used by enterprises and public-private-partnerships should be registered. In 1963, the principle of compulsory registration was confirmed in the *Trademark Administrative Regulations* 商标管理条例 [Shangbiao Guanli tiaoli].

During the Cultural Revolution (1966-1976), regulatory power of trademarks was transferred from SAIC to local governments (interview No. 23). *Trademark Law* (1982) was the first of all IP laws to be promulgated, mainly because the trademark system was not totally abolished in the first three decades of the PRC. The key issue was not to establish a new system but to transfer the power of trademark regulation from local governments to the central government.

2.3.1.3 Copyright

The *Resolution Concerning the Improvement and development of Publishing* in 1950 (hereinafter Publishing Resolution (1950))¹³ was the first policy concerning publication and copyright after the PRC was established. It provided that “the publishing industry should respect authors’ rights and copyright; behavior such as reproduction, plagiarism, and adaption should be prohibited” (Li 2007, 12). The remuneration system was abolished in 1960¹⁴ and restored in 1977, at the end of the Cultural Revolution.

In contrast to patents and trademarks which existed as proprietary rights in the first few years of the PRC and were later abolished or transformed, “copyright” was not recognized as a propriety right in the first three decades of the PRC. Though the term copyright was mentioned in the Publishing Resolution (1950) and remunerations were paid in the early days of the PRC, no substantive right was attached to this term. The Publishing Resolution (1950) was formulated to serve the interests of the people and the socialist system; publishing was regarded as an ideological instrument for the proletariats to use in their struggle with the bourgeoisie.¹⁵ During the Cultural Revolution, the remuneration system was “considered as the staunchest fortress of bourgeois rights and was completely destroyed” (Lu 2008, 26).

2.3.2 The neglected history and its impact

The existence of intellectual property or its alternative form of knowledge regulation in the first three decades of the PRC has been neglected in the narrative of IP regulation in contemporary

¹³ The National Conference on Publishing in 1950 made the *Resolution Concerning the Improvement and development of Publishing* 关于改进和发展出版工作的决议 [Guanyu Gaijin he Fazhan Chuban Gongzuo de Jueyi]. It was considered the first copyright related policies after the PRC was established.

¹⁴ It was abolished because the remuneration system was not compatible with the communist ideology of “transforming all classes into a working class.” As highlighted by a notice in 1960, “whether to abolish remuneration is an issue related to the transformation of living methods and worldview of authors, artists and intellectuals” (Zhou 2002, 123).

¹⁵ For instance, the Publishing Resolution (1950) provided that “the Chinese people’s publishing cause should conscientiously implement the national, scientific and popular cultural and educational policies, and resolutely fight against feudal, comprador, and fascist ideas”. In April 1963, The Propaganda Department of the CCP Central Committee 中共中央宣传部 [Zhonggong Zhongyang Xuanchuanbu] held a National Publishing Conference, and the report from this Conference stressed that “publishing is a significant field for the ideological struggle between the proletariats and bourgeois” and “(we) should make publishing play an active role in the international and domestic class struggle as well as in China’s socialist construction.”

China. This was because the abovementioned IP-related regulations were not implemented, and the USSR model of knowledge regulation was not compatible with intellectual property. Nonetheless, this history had a significant impact on the current IP system in China, both institutionally and ideologically.

Institutionally, the ministries governing knowledge were established in this period and continued their mandates after IP laws were promulgated. When China wanted a copyright regulator in place in the 1980s, it did not come from a vacuum. The National Copyright Administration of China (NCAC) established in 1985 was not a new institution but was a title¹⁶ added to the National Publishing Administration (NPA).¹⁷

The NCAC's status of sharing the same institution with the State Administration of Press, Publishing, Radio, Film, and Television (SAPPRFT) gave this copyright regulator a unique mandate to monitor the ideological representation of works, in addition to protecting the rights of authors. As mentioned, one of NPA's mandates was to serve the class struggle¹⁸ and to perform ideological control in the early years of the PRC. During the drafting of the *Copyright Law* (1990), the most prominent issue was how to balance the protection of authors' rights with the control of public opinion (Shen 2008a, 2-3).

The institutional history of patent regulation followed a similar pattern. The State Science and Technology Commission (SSTC) was a regulator of science and technology following the USSR model in the first three decades of PRC. In 1978, the SSTC began to "integrate the regulation of patent" (Tang 1998, 92): *Patent Law* (1984) was drafted by a working group under the guidance of the SSTC. The State Patent Office of China (SPO) was directly affiliated to the State Council

¹⁶ In the Chinese administrative system, there are cases of "two titles for one agency 一个机构 两块牌子 [yige jigou liangkuai paizi]" at both national and local levels. "One agency" refers to one legal representative, one financial account, one leadership team, and one set of personnel of the agency; "two titles" refers to two names for the same agency. An agency can choose an appropriate name when facing a different audience (Jing, Chen, and Xiao 2016).

¹⁷ The Publishing Commission of Propaganda Department of the CCP Central Committee (CCP publishing commission) was established as a CCP propaganda institution before the PRC was established. In 1949, the PRC established the National Publishing Administration (NPA) as a successor of the CCP Publishing Commission. The NPA changed its name, upgraded its hierarchy, and expanded its mandates in the recent institutional reshuffles. In 2001, the NPA upgraded its hierarchy from vice-ministerial to ministerial level as the General Administration of Press and Publishing (GAPP). During the latest institutional reshuffle in 2013, the GAPP and State Administration of Radio Film and Television (SARFT) of China was incorporated into a new ministerial level agency, the State Administration of Press, Publishing, Radio, Film and Television (SAPPRFT). At present, it is the SAPPRFT that shares a title with the NCAC.

¹⁸ See *supra* note 15.

but monitored by SSTC,¹⁹ until in 1998 when the State Intellectual Property Office (SIPO) became independent from the Ministry of Science and Technology (MOST).²⁰

At present, institutions like the MOC and MOST still exercise tremendous regulatory power in IP-related issues in China. MOST is still responsible for the regulation of the commercialization of scientific and technological outcomes, an area that overlaps with intellectual property; however, its focus is to mobilize research resources nationally to achieve science and technology breakthroughs. MOST has promoted the establishment of a national innovation system in China since 2010.²¹ This approach of building a “national system”²² for innovation is a legacy of the planned economy (Zha, Li, and Wang 2010). It is an acknowledgment that knowledge regulation in China is more than the protection of private rights of innovators.

In its first three decades, the PRC’s ideology was steered by the Chinese Communist Party (CCP) which in turn drew on the principles of Marxism-Leninism, according to which communal ownership did not only exist for tangible goods but also for intangibles. The widespread acknowledgment of the “communal ownership” of knowledge led to opposition to the formulation of IP legislation. For instance, the Minister for the Ministry of Machinery Industry opposed the patent system at the beginning of the 1980s:

First, from the perspective of classical Marxist theory, economic base determines the superstructure. The patent system is a superstructure based on property right and commodity economy, therefore is incompatible with the public ownership and planned economy in socialist China... Secondly, patents protect foreign inventions and will impair the domestic industries... Thirdly, the patent system will damage the machinery industry which mainly relied on imported set equipment and prevent the spill-over of technologies (Tang 1998, 97-98).

¹⁹ SSTC was the predecessor of the Ministry of Science and Technology (MOST). In the institutional reshuffle in 1998, SSTC was renamed as MOST as a ministerial level agency affiliated with the State Council and the State Patent Office was renamed as the State Intellectual Property Office (SIPO) as a vice ministerial level agency affiliated to the State Council.

²⁰ At its early stage, the SPO was mainly responsible for patent examination. In the 1998 institutional reshuffle, the SPO’s mandates extended, along with renaming as SIPO, to intellectual property regulation in general, including the coordination of national and foreign related intellectual property affairs.

²¹ It was proposed in Opinions on Deepening Institutional Reform for Science and Technology and Accelerate the Building of National Innovation System 中共中央国务院关于深化科技体制改革加快国家创新体系建设的意见 [Zhonggong Zhongyang Guowuyuan Guanyu Shenhua Keji Tizhi Gaige Jiakuai Guojia Chuangxin Tixi Jianshe de Yijian], issued by the CCP Central Committee and the State Council in 2012, that China should establish a “national innovation system 国家创新体系 [guojia chuangxin tixi]”.

²² In China, the “national system(s) 举国体制 [juguo tizhi]” exist for the regulation of many issues. It means that the government can collectively mobilize limited public resources and allocate them to critical areas to achieve a breakthrough. China modelled the national systems from the USSR, in particular in its development of critical industries in the early years of the PRC.

This quotation describes the ideological debate that intellectual property triggered among China's policy-makers and regulators. Eventually, patent law survived three waves of such domestic debates and was promulgated with crucial political support from Deng Xiaoping (Zhao 2008).

Ideological contestation also existed in copyright. The legislative process for copyright law took 11 years (1979-1990). The long drafting process was mainly due to the tension between ideology/public opinion control and the protection of authors' rights. During the deliberations over the draft for copyright law, some representatives for National People's Congress (NPC) proposed to "first set the political criteria of what is allowed to be published and what not, then it's time to talk about the right of authors" (Shen 2008a, 2). Finally, *Copyright Law* (1990) was promulgated without setting specific criteria for censorship, but the opposing opinion was embodied in its Article 4.²³ This article caused a further dispute — it was one of the key issues in the US-China WTO dispute.²⁴

After the Cultural Revolution, the communal ownership of knowledge was consolidated in the minds of the general public. The prior recognition of communal ownership partly contributed to a defiant attitude of the general public towards intellectual property after China re-embraced the IP system in the 1980s.

2.3.3 Technology importation: The prelude to re-embracing intellectual property

The socialist ideology and the communal ownership of knowledge were the major norms for science and technology in the first three decades of the PRC. Though communal ownership might be sustainable domestically, it had little chance as an international operating philosophy in a capitalist world. China had to introduce technologies from other states to catch-up with, or even leapfrog, the international competition (Soete 1985). Although China first introduced the patent system in 1950, partly to facilitate technology importation, the Coordinating Committee for Multilateral Export Controls (CoCom) embargoed exports to China (Hunt 1982).

In the 1950s China began to implement a policy of "leaning to one side to the USSR 一边倒 [yibiandao]" (Guan 2009) ²⁵ which enabled China to receive technical assistance from the USSR and Eastern European states. In this decade, China introduced 156 major projects from the USSR and Eastern European nations in areas of energy, national defense, and mechanical industries.

²³ Article 4 of *Copyright Law* (1990) provided that "works, the publication or distribution of which is prohibited by law, shall not be protected by this law". The background for this provision was the compromise of controversy on public opinion control and private right protection.

²⁴ WT/DS 362, China – Measures affecting the protection and enforcement of intellectual property rights.

²⁵ "Leaning to one side 一边倒 [yibian dao]" was generally considered as the primary foreign policy agenda in the 1950s. Niu (1999) argued this policy has two dimensions — first it was a guiding principle in foreign policy; secondly, it was also a domestic development agenda for China. The second dimension also explains why China modelled the USSR in knowledge regulation (Section 2.3.2).

Sets of equipment accounted for 89.3% of the contract price, while engineering design material, drawings and production process data accounted for only 1% of the contract price. Under the communist ideology of communal ownership, no patent fees were paid by China in these contracts (Xiao and Wu 2015). The USSR also helped nurture the first generation of Chinese technicians and engineers. It dispatched over 8000 experts to China and trained over 7000 Chinese technicians. For instance, Anshan Iron and Steel Plant 鞍山钢铁厂(鞍钢) [*Anshan Gangtiechang (Angang)*] (hereinafter Ansteel), a major iron and steel enterprise, established 156 projects, and further spread its technology to 237 projects over 28 cities in China (Xiao and Wu 2015, 151). However, when the Sino-Soviet alliance broke up in the early 1960s, the USSR stopped technical assistance by recalling their experts from China.

Consequently, China began to diversify its technology importation: endeavoring to import technology and equipment from Japan, and the Western Europe (Zhang et al. 2005, 374-375). After US President Nixon's visit to Beijing in 1972, China started seeking technology transfer from the US. The second wave of technology importation occurred in 1973, with 26 projects on fiber, fertilizer, petrochemicals, integrated coal mining, power stations, etc. (Chen 2005). This wave of technology importation became the stimulus for China to re-embrace intellectual property because China could no longer ignore patents. In keeping with the communal ownership of knowledge, technologies imported to China were further disseminated at no cost. Due to the lack of patent protection for these technologies in China, some foreign companies were only willing to export equipment to China but not the technologies associated with the equipment. Chinese companies were trapped in the circle of "equipment importation, equipment aging, and equipment re-importation".

2.4 Intellectual property re-embraced (1978 onwards)

China and the US normalized their foreign relations at the end of 1978. Intellectual property appeared in the first two US-China bilateral agreements: *the US-China Agreement on High Energy Physics* (1979) and *Agreement on Trade Relations between the US and China* (1979). The US and China negotiated more bilateral agreements on intellectual property from 1988 to 1996. Establishing an IP system and consistently improving it became a treaty obligation for China. Intellectual property was also central to China's GATT negotiations (1986-2001). After China's accession to the WTO in 2001, compliance with the multilateral IP system became a priority for China.

Over time, IP regulation was internalized, by China, as a system to promote innovation. The National IP Strategy²⁶ demonstrated that domestic demands related to intellectual property

²⁶ See note no. 1, in Chapter 1.

prevailed over external pressures, as the primary force for IP law and policy-making in China. Chinese companies and research institutions began to actively use the IP system. With the surge in patent applications and trademark registrations, China sought to transform itself into a leading IP power in the world.²⁷

There was no paradigm shift within these four decades, rather, IP legislation and policies developed consistently and incrementally through rounds of revision and amendment. Nonetheless, a closer examination of different stages throughout this period is necessary to understand the specific context for case studies in this thesis.

2.4.1 US-China bilateral IP negotiations and domestic IP law-making (1978-2000)

Cooperation on science and technology was the starting point for the normalization of US-China bilateral relations, and intellectual property was put on the agenda immediately. During Deng Xiaoping's visit to the US in early 1979, Deng and Carter, the US President, signed the *US-China Agreement on Cooperation in Science and Technology* (US-China S&T Cooperation Agreement) which later became an umbrella agreement for US-China science and technology cooperation. During Deng's visit, China and the US also signed the *US-China Agreement on High Energy Physics* in which China agreed on the mutual protection of copyright. In 1979, a more detailed IP provision²⁸ was included in the *US-China Agreement on Trade Relations* as a condition for the most favored nation treatment (MFN) to each other's products. According to US domestic law (Jackson-Vanik Amendment to the Trade Act of 1974),²⁹ having an IP system in place is a condition for MFN treatment (Maruyama 1999, 169-170).

²⁷ State Council, *Several Opinions on Accelerating Building China as an IP Power under New Conditions* (2015). For details of this policy, see note no. 4 Chapter 1. In 2016, the State Council issued task disaggregation for these opinions, specifying 106 tasks for which presiding and participating ministries are accountable for.

²⁸ Article 6 of the *US-China Agreement on Trade Relations* stipulates that: "(1) both Contracting Parties in their trade relations recognize the importance of effective protection of patents, trademarks and copyrights; (2) Both Contracting Parties agree that on the basis of reciprocity legal or natural persons of either Party may apply for registration of trademarks and acquire exclusive rights thereto in the territory of the other Party in accordance with its laws and regulations; (3) Both Contracting Parties agree that each Party shall seek, under its laws and with due regard to international practice, to ensure to legal or natural persons of the other Party protection of patents and trademarks equivalent to the patent and trademark protection correspondingly accorded by the other Party; (4) Both Contracting Parties shall permit and facilitate enforcement of provisions concerning protection of industrial property in contracts between firms, companies and corporations, and trading organizations of their respective countries, and shall provide means, in accordance with their respective laws, to restrict unfair competition involving unauthorized use of such rights; (5) Both Contracting Parties agree that each Party shall take appropriate measures, under its laws and regulations and with due regard to international practice, to ensure to legal or natural persons of the other Party protection of copyrights equivalent to the copyright protection correspondingly accorded by the other Party."

²⁹ The *Jackson-Vanik Amendment to the Trade Act of 1974* requires the US President to negotiate a bilateral trade agreement with a non-market economy (Communist country) to extend MFN to that country. The key criteria in Jackson-Vanik Amendment involved intellectual property requirement at least at the level of Paris Convention and Berne Convention to ensure fundamental protections to American nationals.

China started the legislative process for copyright after the *US-China Agreement on High Energy Physics* in January 1979. In April 1979, the NCAC proposed to the State Council to establish a copyright regulatory institution and formulate copyright law (Shen 2008b, 13). The patent law proposal abandoned in 1973 was also put on the agenda in April 1979, and the Patent Law Drafting Group was established by the State Science and Technology Commission (SSTC) (Tang 1998, 92). In June 1979, the Trademark Law Drafting Group was established by the SAIC (Liu 1998b, 125).³⁰

As had occurred one century ago, China modeled its IP legislation on that of other states, by dispatching delegations and students overseas. China promulgated its *Trademark Law* in 1982, *Patent Law* in 1984 and *Copyright Law* in 1990. In general, this legislation was compatible with China's initial stage of industrialization. For instance, in *Patent Law* (1984), chemicals and pharmaceuticals were not subject to patent protection and the right of importation was not recognized as part of the patent right (Wen 1992). China's regulatory sovereignty started shrinking when the US came to consider effective protection pivotal to maintaining its competitive advantage (Lehman 1996) and when the Chinese economy started taking-off following the market-oriented reforms and inflow of foreign investment (Maruyama 1999). When multinational corporations shifted their labor-intensive assembly to China for lower cost, the US trade deficits with China skyrocketed.

From 1988 to 1996, the US initiated bilateral negotiations with China on intellectual property on many fronts. The US began bilateral IP negotiations with China in 1989 because China was on the (priority) watch list in its Special 301 Report.³¹ Bilateral Memoranda of Understanding (MOU) were signed in 1992, 1995, and 1996³² after these negotiations. The US also made intellectual property a high priority when negotiating the renewal of the US-China S&T Cooperation

³⁰ Generally, literature in Chinese attributes China's re-embrace of intellectual property to the "Reform and Opening-up" policy started in 1978. Though it makes sense that China may not normalize its bilateral relations with the US without the opening-up policy, signing bilateral agreements with the US provided the direct momentum for China to initiate the legislative process.

³¹ The US introduced the Special 301 Section in its *Omnibus Trade and Competitiveness Act of 1988* (the 1988 Trade Act) to coerce its trading partners to improve intellectual property protection through the credible threat of unilateral retaliation. Procedurally, the Special 301 directs the US Trade Representative (USTR) to identify those foreign countries that deny "adequate and effective protection of intellectual property rights", or deny "fair and equitable non-discriminatory market access to United States persons who rely upon intellectual property protection" within 30 days after the issuance of the National Trade Estimate Report. For more details, see Bello and Holmer (1989).

³² US-China Memorandum of Understanding on the Protection of Intellectual Property (1992), January 17, 1992; China-United States Agreement Regarding Intellectual Property Rights Memorandum of Understanding (1995), February 26, 1995, and China Implementation of the 1995 Intellectual Property Rights Agreement (1996), June 17, 1996.

Agreement and the *US-China Bilateral Agreement on China's Entry into the WTO* in which new IP standards were a precondition for China's accession to the WTO.³³

Negotiations on all three fronts went on in parallel, with the US skillfully creating synergies across levels and fora in order to push China into the highest possible levels of protection. For instance, the unilateral measure (Special 301 watch list) was a trigger for bilateral negotiations, and the threat of unilateral action coerced China into accepting the US conditions in bilateral negotiations. The US agreed to remove China from the Special 301 watch list for that year when China agreed to enter multilateral IP treaties and (or) amend its domestic legislation. The same cycle started again the following year when China was again put on the Special 301 watch list. This cycle of listing, threat of sanctions, and promises to lift the threat worked from 1989 till 1996. Although the bilateral IP negotiations stopped delivering huge gains for the US after the conclusion of *Draft Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations* (Draft Final Act (1991)),³⁴ its unilateral approach continues: China has been high on the Special 301 watch list each year, from 1989 to 2017. The bilateral negotiations on the three fronts were also intertwined. Conceding specific requirements in US-China bilateral IP negotiations was the cost for China to get the ticket to enter the GATT/WTO and to renew the US-China S&T Cooperation Agreement.

The procedural synergies amongst the negotiations worked for the US for several reasons. First, the unilateral trade retaliation based on Special 301 pressured China into accepting the US' requirements on IP protection. Secondly, the US proposed a principle of "reciprocal protection of intellectual property" in negotiating the renewal of the US-China S&T Cooperation Agreement. This principle required China to provide protection for intellectual property owned by US IP right holders in China at a level equivalent to the US protection of intellectual property owned by Chinese IP right holders. In cases of S&T cooperation,³⁵ if China could not provide such equivalent IP protection, the US right holders would solely own the intellectual property in the subject matter that was protected in the US and in any other third country. Accepting this principle, *Patent Law* (1992) extended the protected subject matter to pharmaceuticals and agrochemicals

³³ Though the ultimate aim of China's GATT negotiation was to include China in the multilateral trade system, the negotiations concerning market entry were taken bilaterally. China and the US reached this bilateral agreement in which the US agreed to support China's entry to the WTO in March 1995. This agreement considerably accelerated China's GATT negotiation.

³⁴ MTN.TNC/W/FA, Uruguay Round, Trade Negotiations Committee, *Draft Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations*, December 20, 1991. The text of the TRIPS Agreement made two minor changes on the basis of this Draft Final Act (1991): "(1) the addition to Article 64 of paragraphs 2 and 3 on non-violation disputes and (2) the addition of the language in Article 31(c) in regard to semiconductor technology." See Otten (2015).

³⁵ Since it was proposed in the negotiation of the US-China S&T Cooperation Agreement, the scope of this principle was confined by the case of science and technology cooperation projects. It meant it was not applicable to intellectual property beyond these projects.

and extended patent terms to 20 years.³⁶ Thirdly, China was willing to accept high IP standards in these bilateral negotiations based on the expectation that China would complete the GATT negotiations (starting in 1986) quickly and become a GATT/WTO Member soon. As long as the US requirements on IP protection in these bilateral negotiations were level with the expected TRIPS standards, it was acceptable to China because once it had joined the WTO, it would have to comply with TRIPS anyway. For instance, although China amended its patent law in 1992 apparently to comply with the US-China MOU (1992), the amendment was also based on the Draft Final Act (1991) because China expected to become a GATT Member soon (Zheng 1998). No one foresaw the uncertainty in China's GATT negotiations which eventually took another nine years to finish, after the *Patent Law* (1992) amendment.

As was the case almost a century ago, China was again in a weak bargaining position in these bilateral IP negotiations. China needed access to science and technology, and the US had the most advanced science and technology; China wanted foreign investment, and US multinational corporations were the major investors worldwide; China was eager to enter the WTO, but it had to go through market access negotiations with the US first so that negotiations with other states could follow. The deterioration of foreign relations after the Tiananmen Square incident in 1989 compounded the pressure on IP negotiations:

Since 1989, IPR has featured prominently – even disproportionately – in US-China relations. While IPR would have been a source of friction in any case, the disputes cannot be separated from the US internal struggle to define a credible post-Tiananmen policy toward China. By taking firm-line disputes, the Bush and Clinton Administration tried to show that they were prepared to confront China aggressively over certain issues within the broader context of US-China engagement. While China resisted US trade pressure, it accepted IPR as a legitimate topic for bilateral bargaining, in contrast to its staunch refusal to publicly negotiate over human rights. Patent, trademark, copyright, and enforcement negotiations provided scarce momentum at a time when fundamental issues bedeviling the overall US-China relationship appeared beyond solution (Maruyama 1999, 172).

All China could do was to minimize the effect of this encroachment on its sovereignty in these IP negotiations, as it did a century ago. China reacted with two strategies: one was to take the TRIPS as a baseline in these US-China bilateral negotiations, and the other was to use its domestic market as a leverage for retaliation. China participated in TRIPS negotiations³⁷ and was one of the

³⁶ *Patent Law* (1984) Article 25.5 excluded “pharmaceuticals and substances obtained by chemical methods” from patent protection. *Patent Law* (1992) essentially extended the subject matter under patent protection by abolishing this provision.

³⁷ China was one of the co-sponsors for the GATT proposal MTN.GNG/NG11/W/71, 14 May 1990. This proposal represented the developing country position in the TRIPS negotiation.

developing country representatives in the “10+10” group.³⁸ Although the voice of China was not heard during the TRIPS negotiations,³⁹ its participation allowed it to have direct access to the Draft Final Act (1991). After signing the Draft Final Act (1991), Chinese negotiators adjusted their position in US-China bilateral IP negotiations — defending the Draft Final Act (1991) and using it as a new baseline to resist higher standards pushed by the US (Wang and Wu 2001). China’s acceptance of the IP standards equivalent to the Draft Final Act (1991) was a prerequisite for it to re-enter GATT, but it did not have to and nor did it want to go further. However, the US continued to persuade China to accept IP standards in its own TRIPS proposals from 1992 to 1995 and it succeeded in some issues. After the signing of TRIPS in 1995, it was almost impossible for the US to push China towards any TRIPS-plus standards.

Once China began to safeguard the Draft Final Act (1991), it became harder for the US to achieve its domestic policy objectives. When the negotiations broke down, the US threatened China with trade retaliation, proposing a list of targeted goods on December 3, 1991. China retaliated on the same day with its own list of goods worth the same amount. This pattern was repeated in December 1994 (USD 2.8 billion) and May 1996 (USD 3 billion) when the US-China bilateral IP negotiations failed (Zhao 2009). The threat of trade retaliation did push the two parties to reach an agreement within the given timeframe, but it did not necessarily mean that the US gained from its threats: China was capable of initiating counter-retaliation on the same scale based on its market power.

In summary, the US generated procedural synergies across various negotiating levels and fora and pushed Chinese IP protection standards to the global IP standard in the early 1990s. Meanwhile, China successfully safeguarded the baseline of TRIPS standards⁴⁰ and successfully resisted the US’ threat of unilateral trade retaliations through the threat of counter-retaliations.

Power relations underpinning US-China bilateral IP negotiations evolved from 1979 to 1996. China was in a weak position signing the early agreements in 1979. Establishing an IP system was the price China had to pay to progress S&T cooperation with the US. The US achieved most in the US-China MOU (1992) among the three MOUs. After China signed the Draft Final Act

³⁸ This “10+10” group was not a negotiating group, but a consultation group in the late phase of the TRIPS negotiation. The group initially included ten developed countries and ten developing countries. But in practice, the group was open to any interested delegation. In the end, it included 14 developing countries (Argentina, Brazil, Chile, China, Colombia, Cuba, Egypt, India, Nigeria, Peru, Tanzania, Uruguay, Pakistan and Zimbabwe).

³⁹ The TRIPS negotiation was mainly influenced by the “Quad” (including Canada, the EC, Japan and the United States), and “the voice of China was not heard during the negotiations” (Cottier 2015, 86).

⁴⁰ There were a couple of TRIPS-plus standards that China accepted in these bilateral negotiations. One is customs protection of intellectual property for exporting goods, and the other is data exclusivity. For more detailed analysis, see Chapter 6.4.

(1991), the US did not gain substantially from the bilateral IP negotiations even with the threat of trade retaliation. This explains how the honeymoon started from 1996 (See below 2.4.2).

2.4.2 Post-TRIPs era: Compliance, cooperation, and less coercion

The decade from 1996-2007 was often referred to as a honeymoon (Harris 2008) for US-China bilateral IP relations. In this decade, China mainly focused on TRIPS compliance, making sure that domestic IP legislation did not conflict with TRIPS. The amended Chinese IP laws,⁴¹ in the year 2000, adopted the same language as is used in TRIPS to avoid any conflict with TRIPS. Market entities in China also began to use intellectual property to protect their own interests. Patent applications submitted to SIPO increased 26% annually since 2000(WIPO 2011b), which made SIPO the world's biggest patent office in terms of the number of patent applications from 2011.

In this decade, China also became active in international IP engagement. It developed a positive relationship with WIPO (Chapter 7.2), signed 17 WIPO administered IP treaties (Appendix I), and joined other developing countries in submitting proposals to the TRIPS Council in the Doha Round. The honeymoon ended when the US sued China at the WTO in 2007.⁴²

Bilaterally, intellectual property emerged on the agenda of EU-China relations in 1999, when the EU incorporated intellectual property into its EU-China projects.⁴³ Crookes (2013) argues that these programs of technical assistance have been among the most effective soft power instruments in shaping the EU's influence on China. These projects are important channels for norm diffusion from the EU to China, in which the EU has transferred to China not only IP norms and standards but a certain set of "EU-specific" norms and standards (Wyzycka and Hasmath 2016). The *sui generis* protection of geographical indications (GIs), to be discussed in Chapter 3, is an example of EU-specific norms. In addition, these projects have "increased positive attitude by IP regulators in China, in particular, Ministry of Commerce (MOFCOM), towards intellectual property" (Wyzycka and Hasmath 2016, 9).

In addition to the US and EU, other countries have endeavored to enhance bilateral liaison with China over intellectual property. IP attachés have been dispatched to China from Australia, Canada, the EU Delegation, Germany, Japan and the UK and the US [Interview No. 35]. Obviously, all countries dispatching IP attachés to China are technology/brand exporters to China. The US has 13 IP attachés worldwide, and three of them are based in China. The major mandate

⁴¹ This was often referred to as the second round of IP law revision, which included *Patent Law* (2000), *Trademark Law* (2000) and *Copyright Law* (2000). The primary focus of this round amendment was to comply with TRIPS. See Wen (2002).

⁴² WT/DS362, China – Measures Affecting the Protection and Enforcement of Intellectual Property Rights.

⁴³ So far, there have been three EU-China cooperation projects on the protection of intellectual property rights: IPR1 (1999-2004), IPR2 (2007-2011) and IP Key (2013-2017).

of these attachés in China is to facilitate the protection of intellectual property from their home country. They also facilitate bilateral communications because they gain access to information about the latest IP policy developments and legislative changes occurring in China and have a better understanding of the local conditions.

In the decade after TRIPS, the US started using a mixed strategy of webs of coercion and webs of dialogue (Braithwaite and Drahos 2000, Drahos 2002a) to address US-China IP issues. The US was still ready to deploy coercion. In addition to Special 301, the US International Trade Commission (USITC) also initiated 337 investigations into Chinese companies, another unilateral measure against IP infringement.⁴⁴ Since 2005, the 337 investigations targeting Chinese companies have accounted for 30% of total annual investigations. Patent infringement has been the major cause of action against Chinese companies (Figure 4). However, Chinese companies investigated are not well prepared to respond to the USITC; they are generally not familiar with the US legal system and procedures and are not able to provide evidence within the necessary time limits. Furthermore, they may find it difficult to afford expensive attorney fees. Ran (2017) shows that among 103 Chinese companies sued in the 18 investigations in 2016, only 30 responded at the USITC. Considering this high percentage of trial *in absentia* and market exclusion as a penalty, there is a probability that some applicants abused the 337 investigations.



Figure 4 Chinese Companies Sued at 337 Investigations and the Percentage of Patent Investigations (2001-2016)⁴⁵

⁴⁴ The 337 investigation is a procedure based on the Section 337 of the *Tariff Act of 1930*. It is a unilateral measure against IP infringement by imported products. The investigated products may be permanently excluded from the US market because the 337 investigation introduced injunction as a penalty for infringement.

⁴⁵ Data source: Ran (2017).

In addition to coercion through special 301 and 337 investigations, the US also used consultations and dialogues to softly steer China into doing more on intellectual property. Intellectual property has been discussed in bilateral fora, like the Joint Commission on Commerce and Trade (JCCT) and the US-China Strategic and Economic Dialogue (S&ED).⁴⁶ The JCCT is a joint commission co-organized by the USTR (representing the US) and the Ministry of Commerce (MOFCOM) (representing China) since 1983. As one of the earliest US-China bilateral fora for commerce and trade-related issues, the JCCT became the major forum for intellectual property after the last US-China MOU signed in 1996. Since 2009, intellectual property has also been on the S&ED agenda. The transition of US strategy towards a more dialogue-based engagement is also consistent with the observation of legal transplants to developing countries in general: “while one mechanism—coercion—tends to initiate the transplantation process, it fades over time, and three others largely supplant it: contractualization, socialization, and regulatory competition” (Morin and Gold 2014, 781).

The honeymoon between the US and China ended in 2007 when the US initiated WTO dispute resolution⁴⁷ on IP protection and enforcement in China (Gervais 2009a, Watal 2010, Yu 2011c, Guan 2014, Thomas 2017). The US’ resort to WTO instead of initiating bilateral negotiations with the threat of trade retaliation through Special 301, as it did one decade ago, indicated the increasing ineffectiveness of trade threats and the constraint of multilateralism on US hegemonic power. As one of the key architects of the WTO, the US had to comply with the multilateral rules it created, rules that to some extent constrain it in a globalized world. The panel report relating to the dispute⁴⁸ does not fully support the US claim, in particular on the issue of assessing the effectiveness of a Member’s enforcement efforts. As a result, the US began to deploy the strategy of vertical forum-shifting in recent years (Sell 2010b).

2.4.3 Towards Building China as An Intellectual Property Power (2008 onwards)

After 2008, Chinese domestic IP regulation and its international IP engagement began to present a new trend towards IP instrumentalism. Intellectual property is perceived as an instrument to serve Chinese domestic policy objectives, in particular, to promote innovation instead of an institution born from external coercion. Though 2008 is selected to mark this new stage because China promulgated its *National IP Strategy* in this year, some changes relevant to this new stage occurred before this year. The process of change has been gradual.

⁴⁶ The US-China Strategic and Economic Dialogue (S&ED) started in 2009, which will be discussed in detail in Section 2.4.3.

⁴⁷ US Request for Consultations, China – Measures Affecting the Protection and Enforcement of Intellectual Property Rights, 2007 (WT/DS362/1, IP/D/26, G/L/819).

⁴⁸ WTO Panel Report, China – Measures Affecting the Protection and Enforcement of Intellectual Property Rights, 2009 (WT/DS362/R).

In May 2006, the Politburo of the CCP (PCCP) held its 31st public lecture. Professor Zheng Chengsi and Wu Handong, two celebrated IP law professors, delivered the lecture *International IP Protection and Building IP Legal Institutions in China*. The lecture was presided over by Hu Jintao, the then CCP Central Committee General Secretary and the President of China. Following the lecture, President Hu made a speech, pointing out:

At present, the core competitiveness of a state is more and more manifested by its capacity to cultivate, deploy and control the intellectual resources and outcomes, which is essentially the capacity to possess and use intellectual property... Intellectual property plays a significant role in the construction of an innovative state... China would accelerate its formation and implementation of the National IP Strategy. Politburos and governments at all levels should attach great importance to intellectual property, put intellectual property related work on high agenda and improve accountability concerning its implementation... The whole society should make concerted efforts to promote the priority of intellectual property (Xinhua News Agency 2006).

Within China's hierarchical governance structure, this speech sent a clear signal to various levels of government to treat intellectual property as a priority. Following President Hu's instruction, the *Outline of the National IP Strategy* (National IP Strategy) was promulgated on June 5, 2008. The National IP Strategy (2008) set IP targets to be achieved in 2013 and 2020 and specified tasks for their implementation. The National IP Strategy (2008) has significantly improved the priority of intellectual property through institution-building and implementation. Institutionally, the Inter-Ministerial Joint Meeting for Implementing the *National IP Strategy* (Inter-Ministerial Joint Meeting) was established. With its general office affiliated to and located in the State Council,⁴⁹ the Inter-Ministerial Joint Meeting has all 31 IP regulators as members (Appendix II). The National IP Strategy (2008) is implemented through the "pressure driving mechanism" (Cheng and Drahos 2018) which propels local governments to achieve the targets it sets.

After achieving its mid-term targets in 2013, China released the *Action Plan on Further Implementing the National IP Strategy (2014-2020)*⁵⁰ (National IP Strategy 2.0) as the second stage of the National IP strategy. The National IP Strategy 2.0 set specific, measurable, and time-based targets for invention patent applications, patent applications via the Patent Cooperation Treaty (PCT), trademark and copyright registrations, as well as IP services and financing, etc.

⁴⁹ Before 2016, the general office of the Inter-Ministerial Joint Meeting was affiliated with SIPO.

⁵⁰ State Council General Office 国务院办公厅 [guowuyuan bangongting], Circular of the General Office of the State Council on Forwarding the Action Plan by SIPO and Other Departments on the Further Implementation of the National Intellectual Property Strategy (2014-2020) 国务院办公厅关于转发知识产权局等单位深入实施国家知识产权战略行动计划(2014—2020 年)的通知 [Guowuyuan bangongting guanyu zhuanfa zhishichanquanju dengdanwei shenru shishi guojia zhishichanquan zhanlüe xingdong jihua (2014-2020) de tongzhi], No 64 (2014), 国办发(2014) 64 号 [Guobanfa (2014) 64 hao].

(Appendix III). Without any targets on the limits or exceptions to intellectual property or the promotion of technology dissemination, the National IP Strategy 2.0 demonstrates a strong pro-intellectual property tendency.

In 2015, China further clarified its targets for 2020: building China as a leading IP power of the world. The State Council issued *Several Opinions on Accelerating Building China as an IP Power under New Conditions (2015)* which clarifies the role of intellectual property in its “innovation-driven development 创新驱动发展 [chuangxin qudong fazhan]”. Intellectual property, it is proposed, will enhance the competitiveness of China, stimulate innovation, and facilitate industrial development.

China has continuously reformed its domestic IP regulation. Specialized IP courts were established in Beijing, Guangzhou, and Shanghai at the end of 2014.⁵¹ IP tribunals, functioning as circuit courts with trans-regional jurisdiction and concerted procedure, were established in 2017 in another ten cities.⁵² Some local governments also experimented with combined or integrated IP regulators in order to solve the problem of low efficiency in the current fragmented regulation of intellectual property.⁵³

The major justification for strengthening IP regulation in China is the innovation stimulation theory (see Chapter 9.2.1). The rhetoric about stimulating innovation carefully and skillfully diverts a *nationalist debate*, on whether the Chinese IP system essentially benefits foreigners or the Chinese people towards a *functionalist discourse* on whether the IP system promotes innovation. While the issue of who benefits from an enhanced IP system is still part of the debate in China, it is not the focus of the debate anymore.

China has achieved significant S&T breakthroughs in recent years. The latest high-speed train “复新 [fuxin]” (which means rejuvenation in Chinese), boasting a top speed of 400 km/h and a consistent speed of 350 km/h, has shortened the 1318 km traveling time between Beijing and Shanghai to 3.5 hours. By the end of 2016, Chinese railway networks reached 22,000 kilometers,

⁵¹ Standing Committee of the National People's Congress issued Decision on the Establishment of Intellectual Property Courts in Beijing, Shanghai and Guangzhou 关于在北京、上海、广州设立知识产权法院的决定 [Guanyu zai Beijing, Shanghai, Guangzhou Sheli Zhishichanquan Fayuan de Jueding] on August 31, 2014.

⁵² By the end of August 2017, Nanjing and Suzhou, Wuhan and Chengdu Hefei, Hangzhou, Ningbo, Fuzhou, Jinan and Qingdao had established intellectual property tribunals under the approval of the Supreme People's Court of China.

⁵³ The General Office of the State Council, Notice on Issuing the Overall Plan for the Pilot Program on Reform concerning Comprehensive Administration of Intellectual Property 国务院办公厅关于印发知识产权综合管理改革试点总体方案的通知 [Guowuyuan Bangongting Guanyu Yinfa Zhishichanquan Zonghe Guanli Gaige Shidian Zongti Fang'an de Tongzhi], No. 106 [2016] 国办发 (2016) 106 号 [Guobanfa (2016)106 hao]. Local governments (Xiamen, Qingdao, Shenzhen, Changsha, Suzhou, Xuhui) have already experimented on combining fragmented local patent, trademark and copyright regulators into one institution to enhance the efficiency in particular in intellectual property enforcement.

accounting for 60% of the world's total (Xinhua 2017a). Chinese companies owned intellectual property for the overall design and key technologies involved in these high-speed trains, for example, Chinese standards account for 84% of the 254 standards in the high-speed trains (He et al. 2017).

The high-speed train is not the only example. The Chinese submersible “Jiaolong” has dived in the Mariana Trench (Zhang 2017e); the Sunway Taihu-Light has been the world's fastest supercomputer (Xinhua 2016); and the Hualong One demonstration nuclear project, constructed in 2017, will soon be operational (Xinhua 2017b). China has also developed the world's first prototype quantum computer (Xinhua 2017c) and the world's largest radio telescope “FAST” (Xinhua 2017d). This wave of technological breakthroughs has also occurred in consumables and services, being led by companies like Taobao, WeChat, and Xiaomi (Shao 2017). China has begun to expand its cultural projection through the development of the digital creative industry,⁵⁴ specifically prioritizing projects both on equipment development (such as virtual reality, enhanced reality, holographic imaging, naked eye 3D graphics display) and content creation (digitalization of the arts, cultural relics, intangible cultural heritage and culture with local specialty). These and other examples show that China possesses significant independent innovative capabilities and so can look to IP rights as an instrument of protection. Indeed, intellectual property has become an important part of industrial and cultural policy-making.⁵⁵ One typical example is *Made in China 2025*⁵⁶ which was proposed in 2015 as the first step of an overarching, systematic, long-term plan to build China as a leading innovative power by 2045. SIPO has been a member of the Made in China Leading Group and has endeavored to establish and improve the IP evaluation mechanism on the ten prioritized industries in *Made in China 2025* (Zhang 2017a).

In parallel with the increasing domestic demands for intellectual property, internationally TRIPS compliance does not worry China anymore and the US' threat of unilateral trade retaliation is not as effective as in the previous decade. Through webs of dialogue, bilateral (often informal) negotiations become the main channel for the US to influence Chinese IP regulation. The US has two primary concerns about intellectual property in China at this stage: trade secrets and Chinese

⁵⁴ In the 13th Five-year Plan for Economic and Social Development of China, a target that “cultural industry will become one of the pillar industries in China” is set. To achieve this target, Digital creative industry was promoted as one of the strategic emerging industries in China.

⁵⁵ The relationship between intellectual property and economic growth in China are manifested by the economic contribution principle of intellectual property. In addition to measuring and quantifying the direct contribution of various types of intellectual property to the economic growth directly. This principle also knitted intellectual property into the industrial policies. See Chapter 9.2.2.

⁵⁶ State Council, *Notice on Issuing Made in China (2025)* 国务院关于印发《中国制造 2025》的通知 [Guowuyuan Guanyu Yinfa Zhongguozhizao (2025) de tongzhi], No. 28 (2015) 国发(2015) 28 号 [Guofa (2015) 28 hao].

indigenous innovation policies.⁵⁷ Since both issues are beyond the scope of TRIPS,⁵⁸ the US could not table a dispute at the WTO as it did in 2007. In the case of indigenous innovation policies, the American Chamber of Commerce in China (AmCham China) successfully prevented the Chinese from implementing the indigenous innovation policies, by putting it high on the agenda of US-China bilateral relations (Chapter 8.3.2). For trade secrets, the US exerted its influence through transnational networks, in particular, the Chinese IP epistemic communities to reinforce trade secret protection in China (Chapter 8.3.1). In summary, the US strategy in this decade was primarily first identifying a specific issue, framing an improved IP protection on this issue as conducive to innovation, proving the US experience as “successful or advanced”, and disseminating the successful experiences of the US to Chinese epistemic communities and technocrats. At the time of writing, it is still too early to say whether these strategies, based on influence through dialogue with key organizations and communities, are successful or not.

After 2008, China began to more active in engaging with international IP regulation on various issues at the bilateral, plurilateral, and multilateral levels. During this period, China developed various strategies to manage contested principles. Chinese sub-state actors and non-state actors also developed transnational networks with their counterparts in other states or with international organizations. China’s multi-level and multi-forum IP engagement at this stage is the focus of this thesis and will be analyzed in detail in the following chapters.

2.5 Is China a born pirate? Knowledge regulation in ancient Chinese society

Before addressing specific cases on China’s international IP engagement, this section will discuss how the US isolated China from its own history of knowledge regulation, during US-China bilateral negotiations. In the US-China bilateral negotiations from 1989 to 1996, the US negotiators framed China as a born pirate (Wu 2009a)⁵⁹ on the basis that China did not have any IP statutes as part of its ancient history. This section focuses not on facts of IP/knowledge

⁵⁷ See, for instance, the US Fact Sheet of the 27th JCCT, which includes bad faith trademarks, licensing, online infringement of intellectual property, sports broadcast copyright protection, and trade secret as top concerns from the US side, available at: <https://ustr.gov/about-us/policy-offices/press-office/fact-sheets/2016/november/us-fact-sheet-27th-us-china-joint#>. “Prohibiting knowingly theft of trade secret and other know-how online” was also on the agenda of the S&ED in the 9th meeting in 2016, available at: http://www.fmprc.gov.cn/web/ziliao_674904/1179_674909/t1370469.shtml.

⁵⁸ This is because there were no arguable violation of the WTO rules in these cases. In the case of trade secrets, China has already established a legal mechanism that is compliant with the TRIPS standards. In the case of indigenous innovation policy, the controversy does not lie in intellectual property but the WTO *Government Procurement Agreement* (GPA). The indigenous innovation policies required Chinese governments at various levels to give priority to products with “indigenous intellectual property” in their government procurement. Considering China is not yet a member of the GPA, China is not obliged to follow national treatment during government procurement (Shi 2009).

⁵⁹ The US negotiators said they were negotiating with thieves. The Chinese negotiators countered by saying they were negotiating with pirates because the Chinese cultural relics exhibited in Western museums were being exhibited without China’s permission.

regulation in ancient China, but on the framing of these historical facts and the impact of such framing.

2.5.1 Framing China as a born pirate in negotiations: A strategy of naming and shaming

The US framed China as a “born pirate” in the US-China bilateral IP negotiation. This framing was not new. The US had adopted the same tone in the TRIPS negotiations. While proposing that the function of intellectual property was to promote trade and investment, the US also associated intellectual property with zero tolerance of infringement, by using the emotional words of “piracy” and “theft” (Odell and Sell 2006). Framing China as a born pirate was essentially a strategy of stigmatization through naming and shaming (Braithwaite and Drahos 2002). As pointed out by Braithwaite and Drahos, naming and shaming is a bad policy for the powerless but can be a strategic one for the powerful. In the context of US-China IP negotiations, China was very responsive to naming and shaming not only because China increasingly self-identified as a responsible stakeholder who wished to participate in international society but also because China was proud of its thousands of years continuous and prosperous civilization and wanted to avoid losing face (Ho 1976) in international society.

One may argue that the stigmatization of China did not work well. Apparently, stigmatization like other coercive strategies met with a direct response from China. Stigmatization stimulated questioning by Chinese officials regarding the legitimacy of Chinese cultural relics being exhibited in western museums, just like trade retaliation from the US triggered counter-retaliation from China. One could also argue that China’s acceptance of IP rules was out of pragmatism, not because of stigmatization by the US. China did not have strong bargaining power in the US-China IP negotiations anyway (Section 2.4.1), so it did not matter whether or not China was framed as a born pirate.

The impact of the framing (and the acceptance of such framing) is more profound and indirect — it matters, in particular, what would follow after the regulatory importation of intellectual property. As pointed out by the *Patent Protection Declaration* (Lamping et al. 2014), TRIPS is not the worst-case scenario in terms of exclusive rights, because it still leaves many areas of flexibilities for state regulation. If China was confident in its history of knowledge regulation, it would explore its own history of social and legal norms, in particular, customary norms; it could then further fashion rules that were societally embedded and that met the TRIPS standards. But in reality, China seems not to have had that confidence. This lack of such confidence perhaps explains its acceptance of the born pirate framing and its failure to explore local legal sources for IP regulation. The framing negated the value of China’s own traditional legal sources for

knowledge regulation and left China with only one way to go, that is, the wholesale importation of “advanced” IP systems.

The US continued to employ this naming and shaming strategy towards China after the US-China bilateral negotiations. China has been on the watch list of the Special 301 for 28 consecutive years. Recently, the US started targeting Chinese companies that are going global. For instance, USTR has put Taobao, China’s largest and the world’s second largest e-commerce platform, on its list of notorious markets in 2012.⁶⁰ Since then, the notorious markets list directly correlated with Alibaba’s reputation and share price. The logic is the same: naming and shaming is a strategic policy that works well for the powerful.

2.5.2 Beyond negotiation: How China was framed as a born pirate by academics

In addition to the bilateral negotiations, a similar argument was proposed in Alford’s book, *To Steal a Book Is An Elegant Offence* (Alford 1995).⁶¹ Alford raised the question of why ancient China had not, over a very long period, developed a statutory copyright law. Specifically, Alford argues that even if there was evidence in ancient China concerning restrictions on the unauthorized reproduction of books, symbols, and products, they were not the same as those in the modern Western IP system. The key difference was that in ancient China, the restrictions on unauthorized reproduction were for the purposes of ideological control, rather than for the protection of civil property rights.

Alford (1995) was translated into Chinese, which stimulated a prolonged debate on whether or not ancient China had an IP law (Li 1998). To prove IP laws did exist in ancient China, Chinese IP scholars have searched for elements in Chinese traditions that resembled intellectual property. For instance, Zuo (2005) argues that China had a history of trademarks for over 2000 years. Relatively advanced systems of agriculture and handicrafts produced many symbols with functions akin to trademarks and geographical indications.⁶² Considering these signs can mark the source of products, Zuo concludes they generally functioned as trademarks (Zuo 2005, 5-8).

There is clear evidence that (trade)marks indicating the source of products existed in ancient China, but such marks did not have the traits of private property that existed in western countries.

⁶⁰ USTR first identified notorious markets as part of its Special 301 Report in 2006. Since 2011, it was separately from the Special 301 Report as a stand-alone report published annually. The lists of notorious markets included physical and online marketplaces. Alibaba, which owns Taobao.com, China’s biggest online shopping platform has been on the Notorious Markets since 2011.

⁶¹ The main argument was already put forward by Alford (1993). Since his 1995 book has been translated into Chinese and has a wider audience and impact, this section will focus on the book.

⁶² The areas included metal fabrication, casting, reeling, embroidery, liquor brewing, tea, traditional Chinese herb medicine, ceramics, and arts and crafts in ancient China. Four famous embroideries were named after their origin, and the world-renowned ceramics were also named after their origin Jingdezhen.

Misappropriation of trademarks in ancient Chinese society was therefore regulated following a different logic — misappropriation was generally considered a violation of a traditional moral standard, rather than of a specific law (Wang 2008). Understanding the value of trademarks in the context of the Chinese legal tradition requires understanding what constituted the traditional morality around their use and how this impacted on the regulation of individual behavior. A Confucian proposition provides an insight into understanding the effects of regulation by morality, instead of law:

Lead people by law and policies and make them comply by imposing a penalty, and the people will try to escape without a sense of shame. Lead people by moral and make them comply through li,⁶³ and they will have a sense of shame and try to comply with the highest standard.⁶⁴

This explanation is just the tip of the iceberg in understanding the legal tradition of ancient China. The protection of trademarks is best understood, in this broad context, from a perspective of legal pluralism and not from a Western-centric perspective of IP laws. The delicate spelling out of how the institution of knowledge regulation worked in ancient China, may even reach a conclusion that “history may teach us that the connection between intellectual property, science, and economic development is contingent and local rather than necessary and universal” (Draho 1995, 18). Such a historical exploration might have equipped China with a theoretical foundation to initiate rival standards that were able to compete with the theoretical justifications for western IP norms. But in reality, this historical investigation never took place. Chinese epistemic communities were trapped by the Western-centric assumption, proposed by Alford, that the proprietary (intellectual property) protection of knowledge is necessary and universal. In the investigation of Chinese history from this perspective, the only conclusion one can reach is that China did not have an IP system as part of its ancient history. The inference that naturally follows from this conclusion is that China should comprehensively import an “advanced” IP system from the West.

The strategy of framing China as a born pirate contributed to integrating China into the international IP system. The search for evidence that the concept of intellectual property existed

⁶³ The *li* 礼 were one of the core concepts in Confucianism. They appeared in many Confucian classics and were left open-ended in definition. Like many other Confucius concepts, *li* were comprehensible but not-articulated, mainly because their explanation is contextual and interactional, and one definition will exclude other possible explanations of them. Unger summarizes key features of *li* as “hierarchical standards of conduct; they governed relationships according to the relative social positions of individuals. The *li* were perceived as customary forms of behaviour intrinsic to particular social situations and positions. The *li* were not positive rules; indeed, in a sense they were not rules at all. They lacked the quality of positiveness because they were not understood, formulated, or obeyed as something apart from the concrete relationships that established an individual's identity and social place” (Unger 1977, 93-96).

⁶⁴ This is a direct quote by Confucius in *the Analects* 论语 [*Lunyu*]. The original text was “道之以政，齐之以刑，民免而无耻；道之以德，齐之以礼，有耻且格。”

in ancient China made it extremely difficult for China to promote a rival system of knowledge regulation that drew on broader Chinese traditions and values.

2.6. Globalization of international IP regulation as a context for China's international engagement

Intellectual property rights were a Western European phenomenon. As international markets began to expand dramatically, there was a demand for international protection through such proprietary systems. The earliest formal agreements were the Paris Convention (1883) and the Berne Convention (1886). Subsequently, there was a wave of bilateral treaties, such as the US-China bilateral agreement (1902) (Okediji 2004a).

After World War II, WIPO became the central forum, at the multilateral level, to coordinate IP regulation. The voting system of WIPO (one state one vote) favored developing countries. From 1984, the US skillfully employed the mechanism of forum-shifting (Braithwaite and Drahos 2000, Sell 2003), which shifted the negotiation of intellectual property to the Uruguay Round trade negotiations which later brought about TRIPS. The US and the EU (European Communities (EC) at the time of the negotiation) were the two most powerful actors in the TRIPS negotiation.⁶⁵ TRIPS was essentially a compromise between the US and the EC. Once developing countries and international civil societies focused on the implications for health outcomes a process of challenge and debate commenced (Helfer 2004). Developing countries and international civil societies reframed intellectual property as a barrier to access, in particular, access to medicine (Correa 2002a, Abbott 2004, Correa 2006, Morin 2006, Sell 2007, Fink and Reichenmiller 2006) and access to knowledge (Kapczynski 2007).⁶⁶ This reframing arose from a series of rational choices by these weak actors (Odell and Sell 2006).⁶⁷ The *Doha Declaration on TRIPS and Public Health* was the best example of this reframing (Drezner 2008). In addition to the access campaigns, the developing countries also proposed international rule-making to protect traditional knowledge and associated genetic resources (Gervais 2005, Carvalho 2007).

The post-TRIPS era was also characterized by the US and other developed countries abandoning the multilateral fora of intellectual property and initiating a new round of vertical forum-shifting.

⁶⁵ In the process of TRIPS negotiations, the “Quad” (Canada, the EC, Japan and the United States) was a powerful coalition for promoting higher IP standards (Otten 2015). In addition, there was a 10+10 group. See *supra* note no. 38. For the negotiation process of TRIPS, see Sell (2003), Drahos and Braithwaite (2002).

⁶⁶ The milestone for the access to knowledge campaign was the *WIPO Treaty on Access to Knowledge*, May 9, 2005 draft.

⁶⁷ As pointed out by Odell and Sell (2006), the rationale for the reframing is that “a weak-state coalition seeking to claim value from dominant states in any regime will increase its gains if it captures the attention of the mass media in industrial countries and persuades the media to reframe the issue using a reference point more favourable to the coalition’s position, other things equal.”

Intellectual property negotiations were shifted to plurilateral and regional fora, such as Anti-Counterfeiting Trade Agreement (ACTA) and Trans-Pacific Partnership (TPP) (Sell 2010b). These initiatives sought to set TRIPS-plus IP standards, in particular for test data protection (Chapter 6.4).

The continuous contestations along with the simultaneous international IP rule-making initiatives, in various fora, led to international IP regime complexity (Alter and Meunier 2009, Raustiala and Victor 2004). Structurally, regime complexity introduces legal fragmentation and rule ambiguity, as well as facilitating cross-institutional political strategies of states (Gomez-Mera 2015). The presence of regime complexity also means that powerful actors can no longer play the game of “winner-takes-all”. When more than one regime exists, an actor will not win in every regime, besides, other actors can opt out by regime shifting or creating new regimes (Morse and Keohane 2014). In summary, legal fragmentation, rule-ambiguity, and opportunities for cross-institutional strategizing are the basic conditions of China’s international IP engagement in the post-TRIPS era.

2.7 Summary

History shows China was a rule-taker in the area of intellectual property, from the 1902 UK-China bilateral IP negotiation, until China’s accession to the WTO in 2001. In this thesis, I ask the question: has China had a chance to be a rule-maker, since its accession to WTO when IP laws and policies are determined by China’s domestic demands, rather than by external pressures.

During the first three decades of the PRC, China made a sovereign decision to model its knowledge regulation on systems devised by the USSR. This period had a profound influence on the distribution of mandates among Chinese IP regulators, and some of those knowledge regulators continue to regulate IP related issues to the present day. For instance, while SIPO has skillfully mobilized private actors and research institutions to utilize the patent system to protect their own inventions, MOST still plays a critical role in collecting and centralizing research and development resources to promote science and technology breakthroughs. The high value placed on communal ownership by the PRC also paved the way for a defiant attitude by the public towards intellectual property, after China re-embraced the IP system in the late 1970s.

This chapter focused on China’s re-embracing of the IP system after 1978. Before China’s accession to the WTO, China engaged in multi-front negotiations at both the bilateral and multilateral levels. The US generated procedural synergies across levels and fora to push China to adopt high IP protection standards. Standing in a weak bargaining position, China managed to adhere to TRIPS standards and resist the US’ threat of unilateral trade retaliations through counter-retaliations. After China’s accession to the WTO, its main focus has been on TRIPS compliance; the US has gradually changed its strategy from the threat of trade coercion to one

incorporating more dialogue. After 2008, when China promulgated its *National IP Strategy*, China began to reinforce IP regulation to serve its domestic policy objectives. This recent history provides the context for China's engagement in specific issues, as will be discussed in chapters 3, 4 and 5.

In this chapter, I also discussed the US' born pirate framing of knowledge regulation in ancient China and its influences. Though this framing did not work effectively in the bilateral negotiations, it did enough to persuade China not to look back to the traditional ways of thinking in order to construct an IP system with Chinese characteristics. The born pirate framing, therefore, provided justification for a comprehensive regulatory importation of intellectual property.

China was a latecomer to the international IP system, arriving on the stage of international economic law after it joined the WTO when the international rules concerning major types of intellectual property had been set by TRIPS. As mentioned, this background constrained the choice of thematic cases of this thesis. Geographical indications, the disclosure obligation, and technical standardization are areas in which international negotiations are still on-going, and so they are the only IP areas in which China has a chance to engage and demonstrate influence. If China cannot impact these areas as a rule-maker, then arguably it will not influence any IP issue area. Chapters 3 to 5 will examine these three thematic cases, one by one.

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Part Two: Case Studies

Chapter 3 China Engages in the International Regulation of Geographical Indications

3.1 Introduction

Geographical indications (GIs) are intellectual property rights in place names that evoke the typical qualities of agricultural products and foodstuffs that originate in particular districts (Gervais 2009b). Typical examples of GIs are Champagne, Feta, Longjing Tea, and Colombian Coffee. As a type of intellectual property, the communities in the demarcated locality have exclusive right to use these indications. Some GIs have built their reputation over centuries, they are often perceived by consumers as being of “better” quality than other similar products, and thus have the potential to bring added value to the producers.

3.1.1 GIs as an international intellectual property right

GIs are identified as a type of intellectual property from a legal perspective. Different terms are used, and different definitions are provided in different international agreements. The *Paris Convention for the Protection of Industrial Property* (Paris Convention) protects “indications of source or appellations of origin”; the *Madrid Agreement Concerning the International Registration of Marks* (Madrid Agreement) protects “indications of source”;¹ the *Lisbon Agreement for the Protection of Appellations of Origin and their International Registration* (Lisbon Agreement) protects “appellations of origin”;² and TRIPS protects geographical indications.³

These different terminologies indicate their different scope of protection to the subjects on the basis of the relationship between the place of origin and particular quality of a product. Correa (2007, 211-212) divides indications related to sources/origin into two categories: (1) simple, quality-neutral indications (like “made in China”), for which the use is merely subject to the condition that a product originates from the place designated by the indication of source; and (2)

¹ “Indications of source” is used in Articles 1(2) and 10 of the Paris Convention and throughout the Madrid Agreement. However, these two treaties do not provide any definition of the term. According to (WIPO 1997, 379), indications of source “include any name, designation, sign or other indication which refers to a given country or to a place located therein, which has the effect of conveying the notion that the goods bearing the indication originate in that country or place”.

² “Appellations of origin” is mentioned in the Paris Convention and defined by the Lisbon Agreement. According to Article 2 (1) Lisbon Agreement, “Appellation of origin means the geographical name of a country, region, or locality, which serves to designate a product originating therein, the quality and characteristics of which are due exclusively or essentially to the geographical environment, including natural and human factors.”

³ “Geographical indication” is defined by Article 22.1 TRIPS as “indications which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin”.

qualified indications which have a particular descriptive meaning because the characteristic, quality, or reputation of products are essentially attributable to a country, region, or locality. Based on this categorization, the difference between the terminologies relating to GIs becomes clearer. Indications of source are quality-neutral marks because it does not imply the presence of any link between the special quality, or other characteristics of the product and its place of origin. Appellations of origin and GIs are qualified indications. Both appellations of origins and GIs fall into the second category because they both require a qualitative link between the product to which they refer and its place of origin, but the link with the place of origin must be stronger in the case of an appellation of origin (WIPO 2016a). That's why appellations of origin are considered as a special type of GIs.

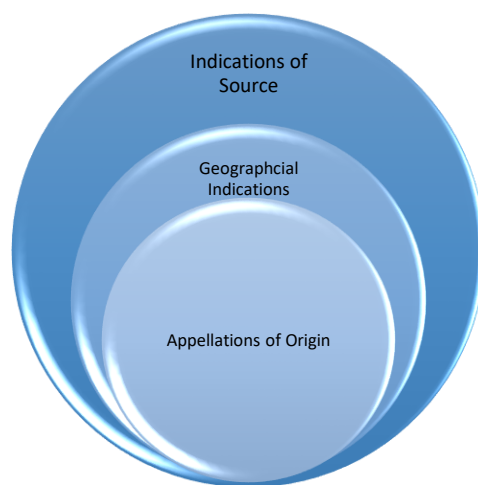


Figure 5 Relationship between the Different Terminologies Relating to GIs

The different definitions and effects of the GI terms in international conventions/agreements and the domestic laws of various countries make the scope of the term unclear, which to some extent causes further confusion and uncertainty in the interpretation of the term (Caenegem 2003). Figure 5 illustrates the relationship between the three terminologies. Indications of source, the simple quality-neutral indications, could also be protected against misuse based on unfair competition law, consumer protection law or trademark law. For the purpose of the case study, this chapter only focuses on the various international fora pertinent to GIs and indications of source are not within its scope.

3.1.2 Contested legal mechanisms for GI protection

There are two primary legal mechanisms for the protection of GIs: *sui generis* protection and trademark protection. The EU, representing the Old World, has established a *sui generis* mechanism for GI protection. This rigid *sui generis* mechanism has been justified by (1) the concept of *terroir* as the core to GIs (Josling 2006); (2) the welfare argument to protect consumers (Grunert 2005, Combris, Lange, and Issanchou 2006); (3) the necessity of using GIs to preserve cultural diversity (Broude 2005); and (4) the benefits of GIs for developing countries (Guerra

2010). On the basis of these justifications, France, and later the EU, continuously promoted *sui generis* protection as global standards. However, these justifications and rule-making efforts have been resisted by New World countries such as the US, Australia, and Chile. These countries prefer the trademark mechanism (Watson 2016). Essentially, the battle over *sui generis* and trademarks can be summarized as a battle over standards regarding what indicates good quality, what shapes consumers' perception of quality, and what constitutes consumer confusion (Das 2015).

As legal mechanisms, the *sui generis* protection promoted by the EU and the trademark protection promoted by the US are different in various aspects. First, a registered GI is a description associated with products from a particular geographical location. A trademark has to be distinctive, that is, it cannot use ordinary words that should be left free for other producers to use. Secondly, all producers from the demarcated geographical location have the right to use the GI label and exclude wrongful appropriation of a GI while the (individual) trademark holder has the sole exclusive right over a trademark. Thirdly, a GI is also seen as a guarantee of quality, where producer associations are responsible for quality monitoring. Trademarks may also be relevant to quality, but this relationship is built upon an accumulated reputation of the producer rather than on the special characteristics of the geographical location. Finally, a GI is not freely transferable because of the required association with the geographical location (Blakeney 2012).

The conflict over common versus proprietary ownership has been bridged by the introduction of certification or collective marks within the trademark mechanism. This does not, however, reconcile the legal conflict caused by the EU's concept of *terroir* (the right to the GI name has been established historically) and the US's first-to-file trademark principle. The EU has promoted *terroir* as the standard set out in Article 23 TRIPS (the higher-level protection for wines and spirits). The US rejects the EU's geographical names policy because either these names have already been registered as trademarks, or because they have become generic names and thus lost distinctiveness (Goebel and Groeschl 2014). The global GI battle over a *sui generis* versus a trademark mechanism is one over which mechanism will be used and the quality standard for GI products that will be set.

In the post-TRIPS era, contestation over international rule-making on GIs has continued at various levels. Many developing countries, being convinced by the EU of the positive effect of GIs on agriculture, joined the EU in promoting GI-related negotiations at the WTO. The US and other New World countries have firmly adhered to the Article 22 TRIPS standards of GIs. As a result, the US has consistently blocked the post-TRIPS proposals by the EU and some developing countries. At the plurilateral level, the EU attempted to incorporate GIs into ACTA but was again blocked by the US. Bilaterally, the EU and the US each have developed their own template on GI provisions in their FTAs based on the *sui generis* or trademark rationales respectively. In the negotiation of the Trans-Transatlantic Trade and Investment Partnership (TTIP) with the US, the

EU is ready for a trade-off between agriculture and GIs — “the EU will accept increased EU market access for some US agricultural products on the basis that the US will accept to protect certain EU GIs in the United States” (O'Connor 2015, 14). However, at the time of the writing TTIP negotiations are on hold.

In the recent Comprehensive Economic and Trade Agreement (CETA), the EU and Canada achieved some interesting compromises. While Canada agreed with Article 23 level protection for specified EU GIs, CETA allows the coexistence of existing trademarks with GI names (O'Connor 2015). However, Canadian producers retain perpetual rights to use certain EU-registered GI names such as feta and Asiago. CETA thus demonstrates an interesting compromise between the EU and New World positions.

3.1.3 GIs as a Chinese phenomenon

Though GIs are generally considered to be a European form of intellectual property (Caenegem, Cleary, and Drahos 2014), it is not uncommon in the Chinese traditional tributary system (Zhang and Buzan 2012). *Shangshu* 尚书, one of the Five Classics of ancient Chinese literature, recorded that Xilü 西旅 (a tributary state at that time) submitted local specialties as a tribute to the new emperor of Zhou around BC 1046.⁴ The tributary system lasted until the end of Qing Dynasty in 1911, and over 3000 types of objects were given as a tribute to the central empire, including food, fabric, exotic beasts and birds, traditional Chinese medicines, and musical instruments etc. (Hu 1996). Current Chinese GI applicants still refer to the history of a local specialty as being submitted as a tribute in their application document as evidence of premium quality or other characteristics of GIs. A reputation built on being a tribute in the past is well recognized by Chinese consumers. Nonetheless, the traditional usage of geographical names in China was not considered intellectual property in the same way as in the EU.

Institutionally, there was no *legal* system originating from China to regulate these local specialties. In the early 20th century, Portugal sought to add GIs in its *Agreement of Friendship and Navigation* with Qing Dynasty (Wang 2008), but the negotiation was not finalized so GIs were not then introduced to Modern China. In the 1980s, following China's Reform and Opening-up policy which introduced foreign investment, and as a result of complaints from EU GI right holders China encountered the concept of EU style GIs for the first time in its history (Section 3.4.3).

⁴ It read that “the intelligent kings paid careful attention to their virtue, and the wild tribes on every side acknowledged their subjection to them. The nearer and the more remote all presented the local specialties, such as robes, food, and vessels for use. 明王慎德，四夷咸宾。无有远迩，毕献方物，惟服食器用 [Mingwang shende, siyi xianbin. Wuyouyuaner, bixianfangwu, weifushiqiyong].” See Shangshu Zhoushu Lv'ao 《尚书·周书·旅獒》. In this quote, “方物 [fangwu]” refers to local specialties.

The first domestic regulations concerning GIs were *Administrative Measures Concerning the Registration of Collective Marks and Certification Marks* (1994) which established trademark protection for GIs. Following China's accession to the WTO in 2001, China established three parallel domestic systems for the protection of GIs, including trademark protection by the State Administration for Industry and Commerce (SAIC) and *sui generis* protection by the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) and a *sui generis* system by the Ministry of Agriculture (MOA). Twelve years after WTO accession, around 3,210 GIs have been registered in all three parallel systems in China, with an economic value amounting to CNY1.3 trillion (USD 213 billion)⁵ (Liu 2013). These numbers show that the concept of GIs has taken root in China. Against this background, this chapter will examine China's international GI engagement.

3.1.4 Justification for GIs as a case study

GIs are selected as a case study for China's international IP engagement for several reasons. First, the "Old World" and the "New World" have consistently contested international GI standard-setting (Evans and Blakeney 2006, Cortés Martín 2004). On the one hand, some European countries have a tradition of protecting GIs via a *sui generis* system; on the other hand, countries such as the US, Canada, Australia, and New Zealand treat GIs as a type of trademark and protect them with their trademark systems. Because of earlier waves of migration, with European migrants bringing their traditional knowledge with them, some EU GIs are considered to be generic names in the US and cannot, therefore, be protected by US trademark law (Gervais 2013). Investigating this case will reveal how China, as a latecomer in the international IP system, established its GI systems under the influence of contested GI standards.

Secondly, China has identified GI protection as being important to its national interest. China has been in a weak bargaining position in IP negotiations until its accession to the WTO, and the momentum for China's IP rule-making has been external pressure (Chapter 2.2 and 2.4). For a long period, IP laws in China did not reflect Chinese domestic interests in intellectual property. GIs are different. From its infancy, GIs have been associated with China's interest in rural development and enhancing farmers' incomes. Therefore, China may have more incentive to engage with international GI regulation, in comparison to other IP issues, to steer relevant international standards toward a direction that will advance its domestic policy objectives.

⁵ Converted by the exchange rate "USD 1 = CNY 6.10" based on the *Announcement of Middle Price for RMB Foreign Exchange Rate* by Ministry of Commerce (31st December 2013). The announcement is available: <http://www.mofcom.gov.cn/article/i/jshz/rlzykf/201312/20131200447598.shtml> (accessed 8 November 2016).

Thirdly, GIs are also an area that demonstrates fragmentation of power in domestic regulation (Lieberthal and Oksenberg 1988). For the three GI systems in China, each regulator has certain authority over international cooperation. This domestic structure of competing systems under three sub-state regulators enables an in-depth investigation of the interaction between sub-state actors and their foreign counterparts and international organizations through multiple channels of contact. In this sense, this case study will reveal a more complex and nuanced engagement of China at bilateral and multilateral levels by various sub-state actors.

3.1.5 Application of the research question to the GI case

This chapter focuses on how China engages with the international GI system. Specifically, this chapter focuses on (1) how does the international GI system influence China? (2) whether or not robust domestic institutional building has stimulated any “Chinese agenda” in international GI regulation? If yes, how has this agenda manifested itself? If not, why not?

The case of GIs will demonstrate that although the Chinese GI systems have been influenced by the US and the EU respectively, its domestic GI protection standards are the same as TRIPS. This means although China has accepted the concept of *sui generis* protection from the EU, the Chinese *sui generis* system does not substantively create GI protection standards equivalent to the EU. However, China has been convinced by the EU and through its own observation that GIs are an effective rural policy instrument. Based on this understanding, China joined the coalition of the EU and the developing countries to promote higher standards for GIs beyond wines and spirits at the WTO. China also actively promoted GI negotiations at the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC). At the bilateral level, China has experimented with a mutual recognition mechanism for GIs with the EU and three FTA partners.

Section 3.2 will set the scene for China’s international GI engagement by examining the complex international regime for GIs and the power contestations between the EU and the US in the international GI system. Section 3.3 will examine how China has established its domestic GI systems under the influence of the US, the EU, and the TRIPS Agreement. Section 3.4 will focus on China’s outward engagement at the multilateral and bilateral levels after its domestic institutions were established.

3.2 International GI regulation: regime complexity and power contestation

Before exploring China’s role in the international GI system, this section first examines the landscape of the international GI regimes. Several authors have already analyzed the specific legal rules for international GI protection (Cortés Martín 2004, Okediji 2007, Gervais 2010, Blakeney 2012, Gangjee 2016). The international GI system demonstrates considerable complexity (Orsini,

Morin, and Young 2013). Gomez-Mera (2015) has identified three consequences of regime complexity for regional governance: (1) introducing legal fragmentation and rule ambiguity; (2) facilitating opportunistic forum shopping and forum shifting; and (3) eroding regional unity through competition and other feedback effects. Informed by the theoretical inquiry raised by Gomez-Mera, this examination of the international GI regime complexity will focus on its impact on China and China's response. More specifically, it will look at (1) whether international GI regime complexity has introduced legal fragmentation to China, and how; (2) whether China has taken any cross-forum strategies such as forum shopping and forum shifting by taking advantage of the international GI regime complexity; and (3) whether the international GI regime complexity has eroded unitary domestic GI regulation in China. Considering that China integrated into the international GI system only after TRIPS, this section will focus on international GI regime complexity in the post-TRIPS era.

3.2.1 Mapping the international GI regime complexity

The Paris Convention is the first international convention which refers to GI protection. Article 1.2 of the Convention protects "indications of source or appellations of origin" but does not define these concepts. Though the Paris Convention mentions "appellation of origin", it does not further specify protection for it. Instead, it only provides protection for "indications of source" in Article 10 (1) which provides the obligation to seize imported "goods bearing false indications as to their source" (Correa 2007, 214). Article 10*bis* further provides against unfair competition by protecting against the use of confusing, false, or misleading names. Because WTO Members are also committed to complying with the Paris Convention and TRIPS does not specify how WTO Members should protect GIs, the mechanisms mentioned in the Paris Convention become one of the available mechanisms that WTO Members could adopt to protect GIs.

The Madrid Agreement and the Madrid Protocol create an international registration system for trademarks that enable one filing of an application with the International Bureau that is effective as separate national filings in the contracting member states. Currently, the Madrid Agreement has 98 members, covering 114 countries, and represents over 80% of world trade. The Madrid Agreement and Madrid Protocol aim to protect sources of origin (quality-neutral indications), the scope of which is broader than GIs.

The Lisbon Agreement is a special and optional agreement based on Article 19 of the Paris Convention and is administered by WIPO. The subjects under protection in the Lisbon Agreement are appellations of origin, a form of labeling with a narrower scope than GIs because the link between appellations of origin with the place of origin is stronger than in the case of GIs. The Lisbon Agreement has not been a notable success for the international protection of GIs (Josling 2006). WIPO attempted to establish a new system for the international registration of GIs, but all

attempts failed. The Lisbon Agreement became more marginalized after TRIPS because of its small membership. In recent years, however, there is a proposal to reinvent the Lisbon Agreement for TRIPS GI Register (Gervais 2010). The revival of interest in the Lisbon Agreement is mainly due to the deadlock in WTO GI negotiations. Also, developing countries rich in GIs on products other than wines and spirits prefer the Lisbon Agreement, because it provides equal protection to all products (Vivas-Eugui 2001).⁶ The WIPO Working Group on the Development of the Lisbon System facilitated the adoption of the highly controversial Geneva Act of the Lisbon Agreement in a diplomatic conference on May 20, 2015. However, the influence of the Lisbon Agreement is still limited due to its small number of contracting parties.

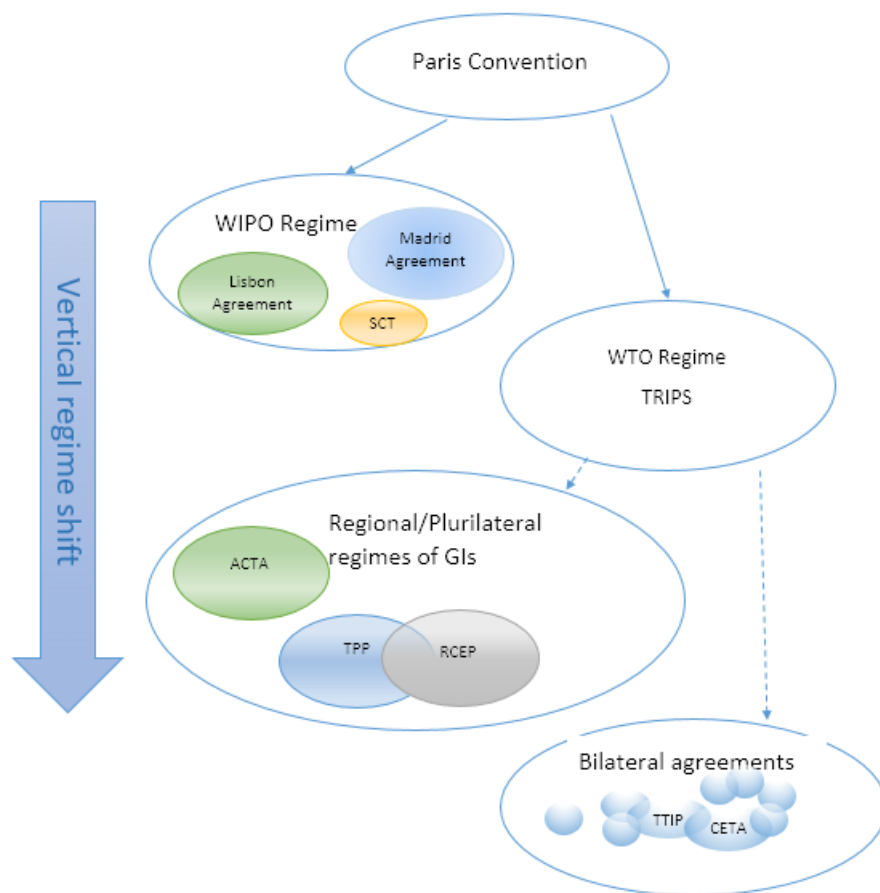


Figure 6 International GIs Regime Complexity

During the TRIPS negotiations, the EU successfully introduced the concept of GIs as well as relevant regulatory rules to the WTO. Although GIs have been on the agenda in the slow-moving Doha Round of WTO negotiations, they have generally encountered a deadlock (Ezeani 2013).

⁶ Article 3 of the Lisbon Agreement provides that the member states have to ensure protection against “any usurpation or imitation, even if the true origin of the product is indicated or if the appellation is used in translated form or accompanied by terms such as ‘kind’, ‘type’, ‘make’, ‘imitation’, or ‘the like’”.

Facing the stagnancy of GI negotiations at WTO,⁷ the EU and the US have each engaged in the strategy of forum shifting (Braithwaite and Drahos 2000). GI negotiations, like other IP negotiations, were, as the next section will show, gradually shifted from multilateral fora to plurilateral and bilateral for a (Sell 2010b).

3.2.2 TRIPS provisions on GIs and post-TRIPS GI negotiations

TRIPS is the first multilateral agreement that protects GIs as a separate category of intellectual property and sets up minimum standards for GI protection. TRIPS has a broader membership than previous WIPO treaties and is more effective because it can be enforced through the WTO. Articles 22 to 24 of TRIPS deal with GIs. Meanwhile, according to Article 2 to Article 4 of TRIPS, provisions in the Paris Convention and the basic principles of national treatment and MFN treatment also apply to GIs.

Article 22.1 of TRIPS defines GIs without specifying any specific mechanisms for WTO Members to implement such protection domestically. Article 23 of TRIPS provides differentiated levels of protection for GIs. Basic protection is granted to products other than wines and spirits, to prevent the use of certain indications from misleading the public. Higher/additional protection is available to wines and spirits “even if misuse would not cause the public to be misled”. The difference between the basic protection and higher protection for GIs granted by TRIPS can be illustrated by the following example: a label “Parma ham, produced in Canberra” is allowed under TRIPS Article 23 because ham is not a wine or spirit and the real origin of the product is indicated. However, “Champagne, produced in Canberra” is not permitted by TRIPS Article 23.⁸ This differentiated protection for wine and spirit GIs was also an EU-US compromise in the TRIPS negotiation where the basic protection is in nature a trademark protection proposed by the US, while higher protection is the *sui generis* protection proposed by the EU. Consequently, though TRIPS does allow flexibility to implement GI protection (Article 22), Article 23 TRIPS requires a higher minimum protection standard for GIs for wines and spirits.

In sum, GI provisions in TRIPS present a constructed inconsistency. TRIPS include provisions to reconcile legal issues between the *sui generis* protection and trademark protection, such as using GIs as generic terms and coexistence between earlier trademarks and GIs. As the EU was not satisfied with the TRIPS outcomes, it has pressed for continuing negotiations at the WTO on issues related to establishing a multilateral system for notifying and registering GIs for wines and

⁷ See TRIPS Council Special Session, *Multilateral System of Notification and Registration of Geographical Indications for Wines and Spirits*, Report by the Chairman, Ambassador Alfredo Suescum (Panama), TN/IP/22 (2014).

⁸ Nonetheless, Article 24.4, 5, and 6 of TRIPS are grandfather provisions that allow continuous practice of a WTO Member concerning certain aspects of GIs before TRIPS. See Heald (1996).

spirits (GI Register) and extending higher-level protection to products beyond wines and spirits (GI Extension) (See Section 3.2.2.1).

3.2.2.1 Post-TRIPS GI Negotiations at WTO

Negotiations on the GI Register and GI Extension started from 1997 and no consensus has yet been reached on these two issues. Considering most of these negotiations happened after China's accession to the WTO in 2001, these debates provide a landscape against which to understand China's position on GIs at the multilateral level.

GI Register negotiations aim to create a compulsory multilateral system for notifying and registering GIs for wines and spirits. GI Register negotiations after TRIPS are a built-in agenda because TRIPS Article 23.4 clearly requires WTO Members to enter into further negotiations on a multilateral registration system for wines and spirits. Major disagreements in negotiations lie in (1) different interpretations for the required participation and (2) the legal basis for protecting a name as a GI. The US has led proposals for a voluntary multilateral GI register system which assesses the appropriate protection on the basis of domestic law and does not introduce any additional burdens beyond TRIPS.⁹ In contrast, the EU has led for a compulsory multilateral register with *prima facie* legal effect.¹⁰

GI Extension negotiations aim to extend higher level protection to products beyond wines and spirits. Negotiations on GI Extension have been more controversial among WTO Members (WTO 2008). Since GI Extension is not explicitly mandated as a built-in agenda in Article 24.1 TRIPS, the primary disagreement was not substantive but centered on whether this issue should be put on agenda for negotiation at all. Supporters of GI Extension argue there is no justification for the hierarchical protection based only on different types of goods. Opponents maintain that the Doha Ministerial Declaration did not provide a mandate for negotiations because these negotiations may introduce new rights and obligations for WTO members.

The initial proponents of GI Extension were primarily developing countries. When the EC joined this group, both sides began to harden their positions, for instance, in the IP/C/W/353 and IP/C/W/386 proposals (Rangnekar 2002). The US even requested a consultation on the EC's GI

⁹ Other co-sponsors supporting the US proposals include Argentina, Australia, Canada, Chile, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Israel, Japan, South Korea, Mexico, New Zealand, Nicaragua, Paraguay, the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu, and South Africa.

¹⁰ Other proponents supporting the EU proposals include Albania, Brazil, China, Colombia, Croatia, Ecuador, Georgia, Iceland, India, Indonesia, the Kyrgyz Republic, Liechtenstein, the Former Yugoslav Republic of Macedonia, Moldova, Pakistan, Peru, Sri Lanka, Switzerland, Thailand, Turkey, the ACP Group and the African Group.

regulation at the WTO Dispute Settlement body.¹¹ So far, there has been no substantive progress in WTO negotiations on either issue.¹²

3.2.2.2 *GI-related initiatives at WIPO*

WIPO has been active in promoting the harmonization of international GI rules since the Madrid Agreement and Lisbon Agreement. WIPO set up a Committee of Experts on the International Protection of Appellations of Origin and Other Indications of Source. This committee prepared a draft of a *Treaty on the Protection of GIs* to the WIPO International Bureau in 1975 (TAO/II/2),¹³ but this failed. WIPO then submitted two proposals for revising the *Paris Convention* to address specific issues related to GIs in the late 1970s, but this attempt failed again. In 1990, a new Committee of Experts on the International Protection of GIs was established to initiate another treaty on the international protection of GIs.¹⁴ The third attempt failed as well.¹⁵ The EU took a strategy of forum shifting by incorporating GI negotiation into the Uruguay Round, which generated TRIPS.

In the Post-TRIPS era, WIPO remains an important forum for multilateral GI negotiations. The Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications (SCT) was established in 1998 to address issues related to trademarks, industrial designs and GIs/appellations of origin. Specific to GIs, the SCT aimed to be “the forum to discuss issues, facilitate coordination and provide guidance concerning the progressive international development of the law of trademarks, industrial designs and geographical indications, including the harmonization of national laws and procedures”.¹⁶ By the end of 2016, SCT had 36 sessions. GIs were intensively discussed in the first ten sessions, but the US and its alliance proposed to keep GIs as second priority thereafter. From the 30th session of SCT in 2013, GIs returned to the SCT agenda, but no substantive achievement has been made at this forum.

¹¹ European Communities – Protection of Trademarks and Geographical Indications for Agricultural Products and Foodstuffs (WT/DS174, WT/DS290).

¹² See WTO General Council Trade Negotiations Committee, Paragraph 9 of *Multilateral System of Notification and Registration of Geographical Indications for Wines and Spirits* (2002). See also Paragraph 17 of *Issues Related to the Extension of the Protection of Geographical Indications Provided for in Article 23 of the TRIPS Agreement to Products Other Than Wines and Spirits and Those Related to the Relationship between the TRIPS Agreement and the Convention on Biological Diversity*, WT/GC/W/633, TN/C/W/61 (2011).

¹³ WIPO Committee of Experts on the International Protection of Appellations of Origin and Other Indications of Source, Second Session, *Draft Treaty on the Protection of Geographical Indications*, TAO/II/2, August 25, 1975.

¹⁴ WIPO Committee of Experts on the International Protection of Geographical Indications, First Session, *The Need for a New Treaty and its Possible Contents*, GEO/CE/I/2, April 9, 1990.

¹⁵ WIPO SCT, Sixth Session, *Geographical Indications: Historical background, Nature of Rights, Existing System for Protection and Obtaining Effective protection on Other Countries*, SCT/6/3, January 25, 2001.

¹⁶ WIPO SCT, First Session, *Organizational Markets and Overview of the Issues to be Considered by the Standing Committee on the Law of Trademarks, Industrial Designs, and Geographical Indications*, SCT/1/2, March 12, 1998.

In sum, although multilateral GI rule-making shifted from WIPO to WTO, WIPO has not ceased its attempts to be a major influence in international GI rule-making. The GI discussions revived in the 30th SCT Meetings. In 2015, the adoption of Geneva Act of the Lisbon Agreement was controversial and indicates the competing GI rule-making approaches in WIPO (Gervais 2015).

3.2.2.3 Failed GI proposal in the Anti-Counterfeiting Trade Agreement

The proposed Anti-Counterfeiting Trade Agreement (ACTA) was a recent plurilateral forum for IP negotiations (Chapter 7.4). Some European NGOs and industrial associations (such as oriGIn and the European Federation of Origin Wines, EFOW) lobbied the European Commission to include GIs in the ACTA negotiation agenda. Among the eight negotiating parties for ACTA, Switzerland and Mexico also supported the EU's proposal on GIs. However, their proposal was rejected by the US and Australia. The final text of ACTA only focuses on IP enforcement and contains no provisions on GIs (Blakeney 2012, 92-95).

3.2.2.4 GIs in bilateral FTAs

Besides multilateral and plurilateral agreements, GIs also appeared in bilateral free trade agreements (FTAs) or other bilateral arrangements such as bilateral investment agreements. The EU and the US are the two main initiators for GI provisions in FTAs. When WTO trade negotiations encountered a deadlock, both parties intensified GI negotiations at the bilateral level.

The EU has negotiated specialized wine and spirits agreements with some New World countries (such as Australia, Mexico, and South Africa) in parallel with the TRIPS negotiation (Blakeney 2014). In these early agreements, the EU succeeded in preventing the use of EU origin names as generic names in the New World. This was realized through the provision of “phasing-out periods”.¹⁷ After TRIPS, GI provisions were included in FTAs/RTAs between the EU and South Korea (2011),¹⁸ Colombia and Peru (2012),¹⁹ the Central American countries (2012),²⁰ Georgia (2014),²¹ and Canada (2016).²² The EU has generally achieved its negotiating objectives in GIs in above-mentioned recent FTAs/RTAs, including: (1) establishing a list of EU names to be protected directly and indefinitely by its trading partner; (2) extending higher level protection

¹⁷ For instance, the *EU Australia Wine Agreements of* (1994) provided a “phasing-out” period for various types of Australian wines, after which the use of the EU origin was prohibited (Dechent and Sadler 2010).

¹⁸ *Free Trade Agreement between the European Union and its Member States, of the one part, and the Republic of Korea, of the other part*. 2011 OJ L 127/1.

¹⁹ *Trade Agreement between the European Union and its Member States, of the one part, and Colombia and Peru, of the other part*. 2012 OJ L 354/3.

²⁰ *Agreement establishing an Association between the European Union and its Member States, on the one hand, and Central America on the other*, 2012 OJ L 346/3.

²¹ *Association Agreement between the European Union and the European Atomic Energy Community and their Member States, of the one part, and Georgia, of the other part*, 2014 OJ L 261/4.

²² *EU-Canada Comprehensive Economic and Trade Agreement* (CETA). CETA entered into force provisionally on 21 September 2017.

granted by Article 23 TRIPS to products beyond wines and spirits; (3) providing for the co-existence of GIs with prior trademarks; (4) phasing out prior uses of names originating in the EU (Engelhardt 2015).

On the other hand, the US also strategically used FTAs to influence regional and multilateral agreements. The US also incorporated GIs in its own FTAs/RTAs, so that the EU model of *sui generis* protection (See Section 3.1.2) would not become the default global standard. In practice, US FTAs/RTAs with Australia, Central American Countries, Chile, Jordan, Morocco and Singapore incorporate provisions for the protection of specific types of GIs (Pugatch 2007). For instance, in the South Korea-US FTA (KORUS FTA), GIs were stipulated under the heading “Trademarks including GIs”. This structural arrangement reflects the US view that trademark protection is enough for the protection of GIs. The KORUS FTA also confirms the legitimacy of the generic use of a GI if the geographical name cannot meet the requirement of distinctiveness.

GI provisions in EU-dominated FTAs and the US-dominated FTAs are incompatible (O’Connor 2014). For instance, after South Korea-EU FTA (KOREU FTA), 162 GI-designated products from the EU became protected in South Korea while 64 South Korea GI-designated products became protected in the EU. The US dairy sector has become concerned because the *sui generis* protection of various EU cheeses may impair the US producers’ use of identical names as generic terms thus affecting US sales into the Korean market (Cooper et al. 2011). South Korea further agreed with the US that it would allow the generic use of GIs (Article 18.2.3 KORUS FTA).²³ It is very difficult for South Korea to simultaneously meet the obligation of both (1) providing higher level protection equivalent to Article 23 TRIPS to specified EU agricultural products as required in the KOREU FTA, and (2) guaranteeing generic use of geographical names as required in KORUS FTA. Unless the EU and the US reach a compromise through TTIP, countries having trade negotiations with both EU and the US will have to, like South Korea, commit to both mechanisms (Frankel 2017).

3.2.3 Regime complexity and vertical regime shifting

The international GI regime complexity has led to rule ambiguity. Various concepts (appellations of origin, sources of origin and GIs) are introduced by different international agreements. Considering that TRIPS has more Members as a WTO agreement than previous WIPO agreements, the concept of GIs in TRIPS has to some extent dominated other concepts.

In contrast to other types of intellectual property, there is no North-South divide based on innovative capacity in the issue of GIs. This is because GIs are the one form of IP that is based

²³ Letter from Jong-Hoon Kim South Korean Minister for Trade to USTR Ron Kirk, June 20, 2011. In this letter, South Korea Clarifies GI Provisions in KOREU FTA to USTR Satisfaction.

on tradition. Instead, GIs are continuously contested between the Old World and the New World. This power contestation in international GI regulation is between the US and the EU, and their disagreement potentially provides opportunities for a third country to have some influence.

Recently, the trend of vertical forum-shifting emerged in the competing GI rule-making in EU-dominated and US-dominated FTAs. EU-US power contestation through these FTAs leads to further legal fragmentation. The recent proliferation of GI provisions in both EU and US FTAs has made it difficult for some third countries to reconcile their treaty obligations. At the domestic level, both *sui generis* protection and trademark protection have been introduced, in particular to many Asian countries (Frankel 2017).

China's international GI engagement is based on the landscape of international GI regime complexity, and continuous EU-US contestation concerning (1) global GI standards based either on Article 22 or Article 23 TRIPS and (2) protecting geographical names either through a *sui generis* or a trademark mechanism.

3.3 GIs in China: legal fragmentation and regulatory competition

Against the international background discussed in Section 3.2, China has introduced both *sui generis* and trademark mechanisms for GI protection under EU and US influence. This section will concentrate on (1) how the various legal mechanisms to protect GIs were introduced to China and the impact of TRIPS, (2) how domestic legal fragmentation has introduced regulatory competition among ministries regulating GIs, specifically the State Administration for Industry and Commerce (SAIC), the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) and Ministry of Agriculture (MOA). In Section 3.3.1 will review how China established its GI systems under foreign influence. Section 3.3.2 will focus on the coexistence of different GI systems after TRIPS. Section 3.3.3 will focus on the actual regulatory competition.

The existence of EU and US influence on GI standards in China does not mean that China passively took GIs rules from the EU and the US. China developed a mechanism for GI protection because it has been seen to be in its national interest. As mentioned in Section 3.1, local specialties in China have built their reputation over a historical period where they were used as tributes. In recent years, GIs have been incorporated into agricultural policies to promote the higher quality agricultural products.²⁴ SAIC has developed a “strategy to help farmers get rich through

²⁴ The CCP issued its first document at the beginning of every year to address policy priorities of the year. Though with various titles specifically, these documents are called “No.1 Policy Document 一号文件 [yihao wenjian]”. From 2004 to 2016, “agriculture, rural areas and farmers 农业、农村、农民 [nongye, nongcun, nongmin]” has been the focus of No.1 Policy Documents for consecutive 13 years. GIs are frequently mentioned as a method in these No. 1 Policy Documents to promote incomes for farmers.

trademarks 商标富农战略 [*Shangbiao funong zhanlüe*]” (Zhang 2009) and certification or collective marks to protect GIs are an integral part of this getting rich strategy.

3.3.1 Chinese GI systems: another battlefield for EU-US power contestation

Though China has a long tradition of recognizing local specialties through its tributary system spanning thousands of years, geographical names and related labels were not traditionally constructed as an (intellectual property) right in China. Like other types of intellectual property regulation, the concept of GIs and legal mechanisms to protect GIs were introduced to China through regulatory importation.

Geographical names were first excluded from protection in its trademark system. *Trademark Law* (1982) did not cover GIs as a subject for protection. In 1986, SAIC issued a reply to Anhui Provincial Administration for Industry and Commerce (PAIC).²⁵ The SAIC Reply (1986) prohibited, on four grounds,²⁶ using geographical names of administrative divisions at or above the county level²⁷ as trademarks. The SAIC Reply (1986) indicated that after China became a contracting party to the Paris Convention, the SAIC began to notice the demand for the protection of GIs. Before any specific law was in place, China first rejected trademark registration for GIs in order to systematically protect geographical names in the future. However, the four grounds only excluded registration of geographical names as trademarks, they did not grant any protection to Chinese geographical names.

The SAIC Reply (1986) does not show how GIs were protected in the early stage, but rather how domestic geographical names were excluded from trademark protection. The SAIC Reply (1986) demonstrated how the Chinese IP regulator understood GIs initially — the “ignorance” of the legal significance of GIs meant China acquired the discourse of GI as an imported agricultural policy.

²⁵ SAIC issued *Reply Concerning Issues of Using Names of Administrative Divisions above the County Level* 国家工商行政管理局商标局就县级以上行政区划名称做商标等问题的复函 [*Jiu Xianji Yishang Xingzheng Quhua Mingcheng Zuo Shangbiao Deng Wenti De Fuhuan*] in 1986 (hereinafter SAIC Reply (1986)).

²⁶ According to Para. 1 of the SAIC Reply (1986), the four grounds include: “first, it is the international custom not to use geographical names of administrative divisions as trademarks. Secondly, geographical names of an administrative division should not be used by a specific enterprise or individual which excludes usage by other enterprises or individuals from the same region of the same name in the same or similar products. Thirdly, using geographical names of administrative divisions at or above the county level as trademarks in a manner that is contradictory with the protection of source of origin. Fourthly, geographical names of administrative divisions at or above the county level can only indicate the source of origin of a product, which is lack of distinctiveness when using as a trademark.”

²⁷ There are four levels of administrative divisions in China, specifically the provincial level, the prefectural level, the county level and the township level.

3.3.1.1 Case-by-case protection of foreign GIs

The SAIC's practice of excluding geographical names from trademark protection led to complaints by foreign businesses. SAIC responded to these complaints by granting protection for the source of origin on a case-by-case basis. Danisa 丹麦牛油曲奇 [*Danmai niuyou quqi*] and Champagne 香槟 [*xiangbing*] were two typical cases. In 1987, SAIC issued an opinion to Beijing PAIC to investigate the false use of the translated Chinese characters of Danisa “丹麦牛油曲奇” by a food company located in Beijing. PAIC ordered the Beijing food company to stop infringement immediately. In 1989, upon consistent complaints from French Champagne producers, SAIC issued an *Opinion* to PAICs nationwide to protect the French geographical name Champagne. According to the *Opinion*, Chinese enterprises cannot use “Champagne” or its Chinese translation “香槟” in any wines and spirits. The Chinese government used these two cases to demonstrate its compliance with international IP conventions in the 1980s (SAIC 2012).

Though this case-based protection was only an expedient before a formal system was built for all products, such protection was considered as a super-national treatment because domestic geographical names were not protected. Such asymmetrical treatment for domestic and foreign geographical names stimulated extensive research on legal mechanisms for protecting GIs. China began to explore the international debates on GIs and learned the propositions for *sui generis* and trademark protection of GIs simultaneously from the EU and the US.

3.3.1.2 Domestic law-making before TRIPS

In 1995, former State Bureau of Quality and Technological Supervision (SBQTS)²⁸ started its cooperation on GIs with the French Ministry of Agriculture, the Cognac Association, and Ministry of Finance through personal exchange and training. In 1997 and 1998, China and France signed the *Sino-French Joint Statement* and *Sino-French Statement on the Establishment of the Cooperative Committee on Agriculture and Foodstuffs* (Liu 2015b). AQSIQ has officially recognized that “these two statements dramatically pushed the progress for China to establish *sui generis* protection for GIs under the leadership of AQSIQ” (AQSIQ 2007). Later, the EU replaced France to promote *sui generis* protection of GIs in China through the EU-China bilateral IP cooperation projects. However, new substantive rules were promulgated before China's accession to the WTO.

After China signed the *Madrid Agreement Concerning the International Registration of Marks* in 1989, foreign applicants began to submit collective/certification mark applications to China. In addition, domestic disputes also arose because of the lack of protection for domestic geographical

²⁸ SBQTS is the predecessor of the current regulator AQSIQ. AQSIQ provides *sui generis* protection for products of GIs in China.

names (see the Jinhua Ham case (Lü and Wu 2006)). To process foreign applications for collective/certification marks, China started using collective marks and certification marks to protect geographical names in 1994.²⁹ China learned from the US its experience in regulating the use of geographical names by a trademark system through the bilateral exchange of ideas among techno-bureaucrats and epistemic communities (SAIC 2012). The Chinese collective/certification mark system was similar to that of the US.

3.3.2 TRIPS as a new model for GI protection in China

China amended its IP laws comprehensively after its accession to the WTO. In order to guarantee full compliance, the amended Chinese IP laws use the same language as TRIPS. Specific to GIs, China provided trademark protection for GIs through collective/certification marks³⁰ and provided higher protection for wines and spirits after TRIPS. The AQSIQ established a *sui generis* system to protect “GI products 地理标志产品 [dilibiaozhi chapin]” in 2005.³¹ Later, the Ministry of Agriculture (MOA) established the third independent (*sui generis*) system to protect “GIs for agricultural products 农产品地理标志 [nongchanpin dilibiaozhi]” in 2007.³² In 2013, the State Forestry Administration (SFA) proposed to establish a system similar to that of MOA to protect “GIs for forestry products 林产品地理标志 [linchanpin dilibiaozhi]”,³³ but this proposal has not yet been approved by the State Council.

²⁹ SAIC issued Administrative Measures Concerning the Registration of Collective Marks and Certification Marks 集体商标、证明商标注册和管理办法 [Jiti Shangbiao, Zhengmingshangbiao Zhuze he Guanli Banfa] by SAIC Order No. 22 (1994) (hereinafter Collective/certification Marks Regulation 1994). These measures issued in 1994 did not provide higher protection for wines and spirits. The higher protection was introduced by new measures in 2003. See note 30.

³⁰ The trademark protection for geographical names are provided by the *Trademark Law* (2001), *Implementing Regulations to Trademark Law* (2002), *Measures on Collective Marks and Certification Marks* (2003), and *Measures for the Administration of Special Signs of Products of GIs* (2007). It is worth noticing that the *Measures on Collective Marks and Certification Marks* (2003) abolished the Collective/certification Marks Regulation 1994 and provides higher protection for wines and spirits for the purpose of TRIPS compliance.

³¹ AQSIQ promulgated the *Provisions on the Protection of GI products 地理标志产品保护规定* [Dilibiaozhi Ghanpin Baohu Guiding] by AQSIQ Order No. 78 (2005).

³² MOA promulgated the *Measures for the Administration of Geographical Indications for Agricultural Products 农产品地理标志管理办法* [Nongchanpin Dilibiaozhi Guanli Banfa] by MOA Order No. 11 (2007). “GIs for Agricultural products” are the subjects under protection, which refer to special agricultural product indications which are named after geographical names and whose purpose is to note that the indicated agricultural products are from a specific area and that the quality and major characteristics of the products mainly lie in the natural and ecological environment as well as the cultural and historical factors of the area.

³³ The State Forestry Administration has proposed *Measures for the Administration of GIs for Forestry Products (Draft for Comments)* 林产品地理标志管理办法 (征求意见稿) [Linchanpin Dilibiaozhi Guanlibanfa (Zhengqiu Yijian Gao)].



Figure 7 Special Signs for GIs Issued by SAIC, AQSIQ, and MOA

Previous studies, in both Chinese and English, have already discussed details of these three parallel systems (Wang and Kireeva 2007, Zhang 2007, Wang and Huang 2006). For this chapter, it is only necessary to understand the architecture of the three systems and their relationship to one another. First, the three systems under three ministries in China are completely independent of each other. Secondly, trademark protection for GIs by the SAIC has been influenced by the US (SAIC 2012), while the EU has influenced both the AQSIQ protection for GI products and the MOA protection for GIs for agricultural products. Thirdly, all three systems model TRIPS standards. Though AQSIQ modeled the EU's system of *sui generis* protection when it was seeking to take its place in the WTO world trade order, the EU could not persuade China to grant *sui generis* protection beyond wine and spirits. Finally, the three domestic systems indicate how the EU-US power competition introduced legal fragmentation on GIs into China.

3.3.3 Practice of GIs protection in China

Though the concept of GIs originated in Europe, China has gradually embraced it and tried to make it work in its own interests. In practice, 12 years after China established the first GI system, 3,210 GIs have been registered in all three parallel systems in China, with an economic value of CNY 1.3 trillion (USD 213 billion)³⁴ by the end of 2013 (Liu 2013). These numbers indicate that national interest is one of the major justifications for China's further international engagement with GIs. Figure 8 shows the number and value of GIs in China in the years 2005, 2010 and 2013 respectively. Over these eight years, the number of GIs granted in all three systems continued to increase. The number of registered GIs in 2013 reached 3,210, which is ten times what it was in 2004. Meanwhile, the estimated economic value increased 12 times from 2005 to 2013 (Zhongjun Research Center 2014).

³⁴ Converted by the exchange rate "USD 1=CNY 6.0969" in accordance with the *Announcement of Middle Price for RMB Foreign Exchange Rate by Ministry of Commerce* (31st December 2013), <http://www.mofcom.gov.cn/article/i/jshz/rlzykf/201312/20131200447598.shtml> (accessed 8 November 2016).

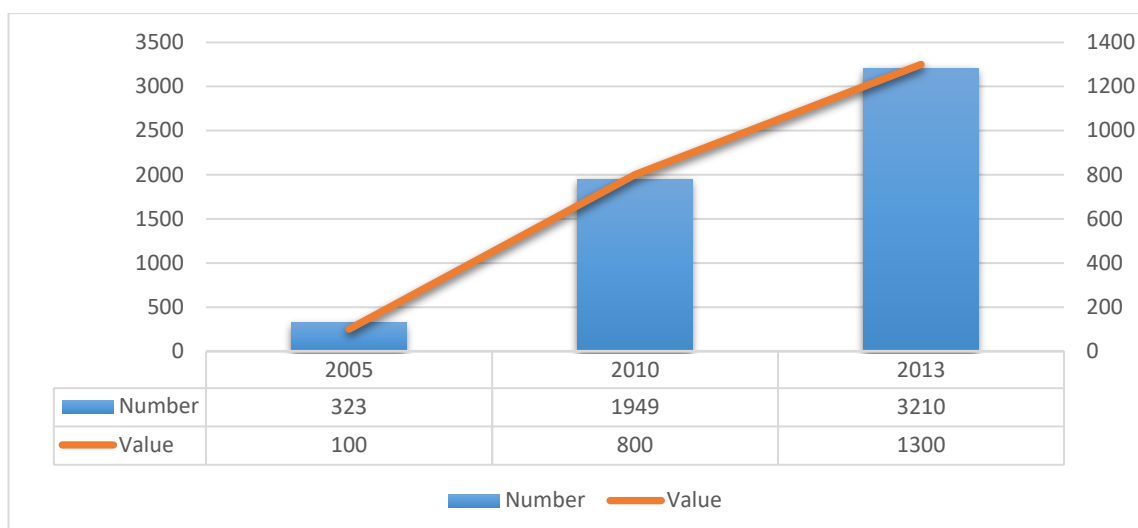


Figure 8 Number and Values of GIs in China (2005-2013)

Data on the internal distribution of the applications submitted to the three systems show more applications have been submitted to the SAIC for trademark protection than to the other two systems. By the end of 2013, SAIC registered 1643 (45.57%) certification/collective marks; AQSIQ approved 1,328 products as GI products; MOA approved 1,028 products as GIs for agricultural products (Figure 9). Considering double applications or triple applications for the same products, there are 23 products protected by all three systems simultaneously. Double protection is granted to 563 products (390 products protected by both SAIC and AQSIQ, 141 products protected by both SAIC and MOA, and 32 products protected by both AQSIQ and MOA). It seems if users seek dual protection, they often submit applications to both SAIC and AQSIQ. It is clear that seeking double or triple registration is a waste of resources, which perhaps explains why a fourth system for the protection of GIs for forestry products has not been approved.

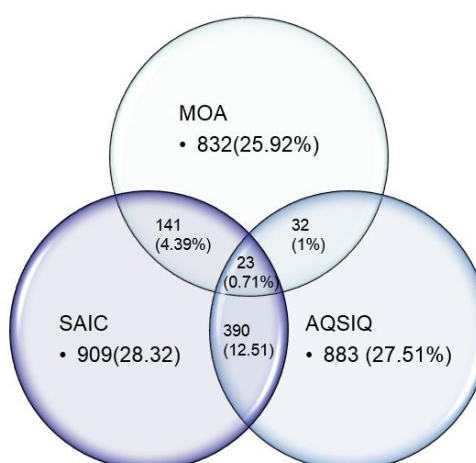


Figure 9 Distribution of Registration among Three Regimes of GIs in China³⁵

³⁵ Data source: *China Geographical Indications Research Report* (2013, Third Edition) (Liu 2013, 11).

According to the types of products, Chinese GIs are divided into ten categories. Among all ten categories of GIs registered in China, the number of registrations, economic value and reputation varies from one type to another. Fruit has the largest number of registrations (21% of total GIs) followed by vegetables (16% of total GIs) and other foodstuffs (11% of total GIs) (Table 5). With regard to economic value, fruit GIs generate more added value in total, followed by wines and spirits. Considering the small number of wines and spirits that are registered, this data shows that individually wines and spirits generate most added value. Statistics on the reputation of GIs show that wines and spirits are the most renowned, followed by tea and Chinese medicine.

Table 5 Categories of Chinese GIs, Their Economic Value, and Reputation ³⁶

Types of Products	Numbers	Total Economic Value	Reputation index
Tea	236	718.5	41.4
Wines and spirits	95	2122.8	85.8
Grain and oil	334	1649.7	6.9
Foodstuff	354	822.7	14.3
Vegetables	514	1294.4	10.0
Seafood	232	957.8	12.5
Fruit	680	2152.6	14.1
Livestock and poultry	324	1123.4	9.3
Chinese herbal medicine	256	631.6	20.2
others	185	1885.8	50.3

The above data on economic value and reputation underpin China's position in the international negotiations relevant issues. First, China has its own liquor and other spirits that are registered as GIs (such as Shaoxing Wine) but they are mainly made from grains (such as sorghum and rice) rather than grapes. On the other hand, many wines from Europe and other western countries have already expanded their market in China. A GI Register agenda at the WTO may, therefore, benefit Chinese products. Secondly, though Chinese tea and traditional medicines have good reputations, they do not have the same level of protection as TRIPS Article 23. Thus, China is motivated to promote negotiations for a GI Extension at TRIPS.

China's promotion of GI protection is also based on some successful cases of using GIs to increase incomes for farmers. For instance, Guanxi Pomelo 琯溪蜜柚 [Guanxi Miyou] was a pomelo named after the little creek of "Guanxi" in the town of Xiaoxi in Pinghe County at Zhangzhou Prefecture, Fujian Province. According to a survey, a total of 635,000 tons of Guanxi Pomelo was sold in China in 2009, with major cities such as Beijing, Tianjin, Shanghai, Nanjing, Ningbo, etc. as destinations. Meanwhile, 120,000 tons of Guanxi Pomelo were exported to Hong Kong, Macao,

³⁶ Data source: *ibid*. Unit for the calculation of economic value is CNY 100 million.

EU, Central Asia, and Southeast Asia. As one of the 10 Chinese GIs in the EU-China mutual recognition project for GIs (See Section 3.4.2), 60% of the above exported Guanxi Pomelo were sold in the EU market. In Guanxi, over 99% of pomelo producers used the collective trademark of “Pinghe Guanxi Pomelo”. With annual capita income from pomelo exceeding 4,700 CNY (almost 800 USD), Guanxi Pomelo becomes a typical example where farmers can get rich from the use of GIs (Sun 2016b).

To summarize, against the backdrop of EU-US power contestation, China has learned from both the EU and the US about different mechanisms to protect GIs. Eventually, China adopted the TRIPS standards, a hybrid of *sui generis* protection for wines and spirits and trademark protection for other products. By doing so, China has avoided moving to the higher protection standard — the comprehensive Article 23 standard *sui generis* system proposed by the EU. This strategy has only been made possible because of the disagreements between the US and EU that have generated rule complexity, thereby allowing China to pick and choose rules and provisions depending on the negotiating context. Regulatory competition has emerged among the three Chinese ministries, SAIC, AQSIQ, and MOA in their GI regulation (See Chapter 8.2).

3.4 China’s engagement in international GI regulation

Although international GI regime complexity offers more pathways for China to select a model of domestic GI regulation, China did not actually make a selection as both the EU and the US, directly or indirectly, influenced China to establish *sui generis* systems and a trademark system for GI protection. Therefore, instead of being forced to choose, China adopted both systems because of the EU-US contestation over GI standards. This section, based on the previous discussion of the landscape for international GI regulation and domestic institution building and practice, analyses China’s GI engagement at different levels.

China is constrained in various aspects of its international GI engagement. First, China is a latecomer to the international IP system, and it is difficult for China to understand the trade-offs in the GI negotiations in TRIPS and to properly interpret the text. TRIPS was part of the most complex set of agreements *The Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations* in the history of international trade negotiations. The complexity and range of these agreements meant that probably only a few players had any real understanding of them as a package (Drahos 2001b).

The same is true of Chinese engagement in WIPO. China has been a Member of the WIPO since June 1980 and joined the Paris Convention in March 1985 and Madrid Agreement in October 1989, and Madrid Protocol in December 1995. When China became a party to these international agreements, their text had already been negotiated. In this sense, China was more a rule-taker than a rule-maker when joining these GI-related agreements.

Admitting the constraints on Chinese engagement in international GI regulation, this section focuses on the position of China in the ongoing multilateral GI negotiations (Section 3.4.1 and 3.4.2), as well its bilateral GI cooperation with the EU (Section 3.4.3) and other FTA partners (Section 3.4.4). China was not a negotiating party for ACTA or the TPP. AQSIQ proposed China should promote GIs in the Regional Comprehensive Economic Partnership (RCEP) negotiations, but there has been little information available about how China has actually behaved in the RCEP negotiations on GIs. For this reason, China's engagement at the plurilateral level will not be analyzed in this section.

3.4.1 China's position at the WTO

China was not fully involved in the post-TRIPS negotiations in the first few years after its accession to the WTO. This is partly because China did not have a nuanced understanding of previous negotiations immediately after its accession to the WTO. Another reason is that compliance with TRIPS was the priority for China following its entry to the WTO. China has amended or formulated its domestic IP laws to comply with TRIPS standards (Li 2002, Hu 2002), and GI laws were part of these (Section 3.3.2). In recent years, China has promoted GI-related policies to boost incomes for farmers, and domestic producers have begun to use various types of GIs in China to protect their interests. Recognizing that protecting GIs is in its national interest, China has engaged in international GI negotiations with a view to promoting relevant international rules in a direction that fits its domestic objectives.

As mentioned, two issues related to GIs have been simultaneously discussed at the WTO after TRIPS. One part of this involved the GI Register which aims to establish a multilateral notification and registration system for wines and spirits, and the other is GI Extension which aims to extend the higher-level protection standard to products beyond wines and spirits. Table 6 provides a summary of the contesting positions in the post-TRIPS negotiations on these two issues.

Table 6 Major Disagreements in the Post-TRIPS Negotiation of GIs

Issues	Position	US Representing the New World	EU Representing the Old World	Developing countries (including China)
GI Register	Participation	Voluntary and non-burdensome	Compulsory	Compulsory
	The legal basis for deciding whether a foreign GI is protectable	Domestic law	International Law/ Prima Facie based on Article 22.1 of the TRIPS	Prima Facie evidence based on Article 22.1 TRIPS
GI Extension	Procedural	GI Extension was not a built-in issue in post-TRIPS negotiations.	Not clear	-GI Extension shall be addressed in the regular meetings of the TRIPS Council on a priority basis. -Text-based negotiations shall be undertaken.
	Substance	GI Extension will create difficulties because: - The distribution of GIs is not balanced among WTO Members. - The provision of Article 22 is sufficient; - the extension will impair the use of genetic terms - GI Extension would incur substantial costs to governments, to manufacturers, and to consumers.	- All GIs should be protected equally; - The Protection of Article 23 TRIPS should be extended to all products.	- All GIs should be protected equally; - The Protection of Article 23 TRIPS should be extended to all products.

Though the table above shows that the EU and the developing countries have taken almost the same positions, this consensus was only reached in 2008 when EU and the developing countries

(108 WTO Members)³⁷ submitted together the proposal *Draft Modalities for TRIPS Related Issues* (TN/C/W/52 proposal)³⁸ to the Trade Negotiations Committee of the WTO. Before that proposal, the GI Register proposals were mainly sponsored by the EU while the GI Extension proposals were supported by developing countries. China was a co-sponsor for the TN/C/W/52 proposal, and it was the only proposal that China has submitted to the WTO concerning GI-related issues. Therefore, this proposal was the only chance to investigate China's GI engagement at the WTO after TRIPS.

The TN/C/W/52 proposal was intended to provide modalities to kick off text-based negotiations to amend TRIPS. It was submitted on July 19, 2008, by two-thirds of WTO Members. It consists of three issues, and two of them are GI related – GI Register and GI Extension. On the issue of GI Register, the proposal clarifies that the “register shall be considered as a prima facie evidence” based on the definition of GIs in Article 22.1 TRIPS and that participation in the multilateral notification and registration system is mandatory. On the other issue of GI Extension, the proposal recommends initiating text-based negotiations in special sessions in order to amend TRIPS. This proposal incorporates both the EU's position on the GI Register and the developing countries' proposal on GI Extension. It was a strategic coalition between the EU and the developing Members of the WTO to promote GI negotiations at the WTO.

As China joined 107 other WTO Members to co-sponsor this proposal, it is hard to distinguish a clear Chinese position on this issue only from the text of this proposal. However, the behavior of co-sponsoring TN/C/W/52 *per se* has indicated that GIs are seen as being in China's national interest. China had a tradition of referring to products by their geographical names in its tribute system and generally supports the promotion of WTO negotiations on both the GI Register and GI Extension.

More specifically, China's position on GIs at the WTO was expressed by Chinese negotiators via academic publications. Wan Yiting, the Vice Division Director for the WTO Department in MOFCOM, co-authored a journal article in Chinese (Wang and Wan 2010) which analyses China's position and strategy in the GI negotiations at the WTO. The first footnote of this article reads “this article is the conclusion of a research project assigned by MOFCOM, and the results of the project have been adopted by the MOFCOM in the WTO Doha Negotiations.” Considering

³⁷ The co-sponsors for the proposal included: China, the EU, Albania, Brazil, Colombia, Croatia, Ecuador, Georgia, Iceland, India, Indonesia, the Kyrgyz Republic, Liechtenstein, Moldova, the Former Yugoslav Republic of Macedonia, Pakistan, Peru, Sri Lanka, Switzerland, Thailand, Turkey, the ACP Group and the African Group.

³⁸ WTO Trade negotiations Committee, *Draft Modalities for TRIPS Related Issues*, Communication from Albania, Brazil, China, Colombia, Ecuador, the European Communities, Iceland, India, Indonesia, the Kyrgyz Republic, Liechtenstein, the Former Yugoslav Republic of Macedonia, Pakistan, Peru, Sri Lanka, Switzerland, Thailand, Turkey, the ACP Group and the African Group, TN/C/W/52, July 19, 2008.

the article was published in 2010 and the TN/C/W/52 proposal in 2008 was the only GI proposal that China has ever submitted to the WTO, “the WTO Doha Negotiations” in the abovementioned footnote refers to China’s position in the TN/C/W/52 proposal. The content of the article further confirms this conclusion. Given the difficulty in accessing interviewees (Chapter 1.6.2), the following analysis is mainly based on Wang and Wan (2010).

According to Wang and Wan (2010), China held the following positions on GI-related issues in proposing TN/C/W/52. First, China intended to strike a balance between the EU position and the US position on the controversial issue of GIs. On the one hand, China joined the EU in the TN/C/W/52 proposal at the WTO on GI Register and GI Extension. On the other, China did not join the EU in blaming the US firms for using EU GIs as generic names. Instead, China referred to the principle of mutual respect for each other’s state sovereignty and non-interference in each other’s internal affairs.³⁹ According to this principle, the legitimacy of US firms’ behavior in using EU GIs is an internal affair of the US, and China respects the US’ sovereignty in regulating this issue based on US domestic laws and regulations (Wang and Wan 2010). The principle of non-interference is linked to the principle of avoiding offense to others.

Secondly, China strategically made a procedural proposal to show its substantive preference. Between the two issues of the GI Register and the GI Extension, China was more interested in the GI Extension than the GI Register. This was because China is a country rich in resources and many of them are internationally renowned products. However, most of them are not wines and spirits (See Table 5). To promote this preference for GI Extension, China proposed to bind the negotiations on these two issues together, but TRIPS does not give these two issues the same priority. The GI Register has already been given a higher priority than the GI Extension by virtue of Paragraph 18 of the Doha Ministerial Declaration:

*With a view to completing the work started in the TRIPS Council on the implementation of Article 23.4, we agree to negotiate the establishment of a multilateral system of notification and registration of geographical indications for wines and spirits by the Fifth Session of the Ministerial Conference. We note that issues related to the extension of the protection of geographical indications provided for in Article 23 to products other than wines and spirits will be addressed in the Council for TRIPS pursuant to paragraph 12 of this declaration.*⁴⁰

As revealed in this quotation, the GI Register is a built-in issue which WTO Members are committed to negotiating after TRIPS, but the GI extension is not a built-in issue. China proposed to bind the negotiations on these issues together in order to increase the priority of the GI Extension. However, binding the negotiations on these two issues might also have had the effect

³⁹ Respect state sovereignty is the key element in the five principles of peaceful co-existence (Fifield 1958).

⁴⁰ *Doha Ministerial Declaration*, 20 November 2001, WT/MIN(01)/DEC/1.

of slowing the progress of negotiations on the GI Register, as due to the strong resistance of the US on GI Extension (in particular by its dairy industry). Together with other developing countries, China's procedural proposal on binding the two issues together actually amounted to a request to the EU to support their position on GI Extension substantively. Enhancing the priority of GI Extension worked as a condition to co-sponsor the proposal with the EU— if the EU wanted the coalition on GIs to work, it had to support the developing countries' position on GI Extension.

Thirdly, on the issue of the GI Register, while China generally agreed that the multilateral register on wines and spirits should be compulsory, China prefers to have greater flexibility. Comparing the Chinese position as manifested by Wang and Wan (2010) and the text of the TN/C/W/52 proposal, there are three differences on the issue of the GI Register: (1) they differ in the governing law concerning whether a geographic name can be protected as a GI. While the TN/C/W/52 proposal maintains that such a decision should be made on the basis of international law,⁴¹ China took a position that the decision should be made on the basis of domestic law; (2) While the TN/C/W/52 proposal put forward a restrictive enforcement mechanism of the multilateral register to protect the interest of right holders, China proposed a principle of sufficient notification. Following this principle, there would be more flexibility in the enforcement — if an infringer uses the GIs because he/she does not know the registration, he/she will be exempted from punishment; (3) While the TN/C/W/52 proposal does not mention anything about any protection available to a third party, China proposed that the right of a third party should be protected by enabling them to have the right to sue in a local court of a WTO Member (Wang and Wan 2010). Referring to Table 6, some of these positions are more similar to the US position than to the EU

In sum, though China jointly proposed the TN/C/W/52 proposal with the EU and other developing countries, China does not take the same position as the EU. China's preference on GI Extension was expressed in a subtle way — through binding the negotiations of the GI Register and GI Extension together to raise the priority of GI Extension. This subtlety is caused by (1) the limited benefits that China will gain from negotiations on the GI Register (Wang and Wan 2010), and (2) China prefers the proposal of GI extension because it will increase the value and reputation of Chinese products (especially those attached to cultural heritage and traditional knowledge) by granting a higher protection standard protection for other products.

⁴¹ Paragraph 2 of the proposal stated that “in the framework of these procedures, and in the absence of proof to the contrary in the course of these, the Register shall be considered as a *prima facie* evidence that, in that Member, the registered geographical indication meets the definition of ‘geographical indication’ laid down in TRIPS Article 22.1.”

3.4.2 China and the WIPO SCT

In all WIPO administered treaties regulating GIs, China has not yet signed the Lisbon Agreement, the major international agreement on GIs administered by WIPO. In May 2015, the Diplomatic Conference for the Adoption of a New Act of the Lisbon Agreement for the Protection of Appellations of Origin and their International Registration⁴² was held in Geneva. Since China is not yet a member of the Lisbon Agreement, China only dispatched a delegation as an observer to the Diplomatic Conference (WIPO 2015).⁴² In June 2016, the Working Group for the Preparation of Common Regulations under the Lisbon Agreement and the Geneva Act of the Lisbon Agreement held their first meeting, China again dispatched a delegation as an observer to the conference. Domestically, so far there is no indication that China is interested in joining the Lisbon Agreement.

In recent years, the WIPO Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications (SCT) has become another forum within WIPO for GI negotiations (Section 3.2.2.2). Chinese representatives participated in the WIPO SCT Sessions. However, looking through the SCT conference minutes,⁴³ China has rarely expressed its opinion and has never been involved in any debate. On the very few occasions a Chinese delegation has expressed an opinion, the representative made sure not to introduce any controversy. For instance, at the Sixth Session SCT, the Chinese delegation said:

*China was in support of examining the protection of geographical indications because its country was currently revising its legislation in marks and the relationship between geographical indications and trademarks appeared to be a problem that needed to be overcome. The Delegation said that it would appreciate a continuing discussion and that awaiting the outcome of the work that was currently undertaking on geographical indications within the Council for TRIPS was not necessarily satisfactory.*⁴⁴

Though China is not interested in engaging in the SCT debate on GIs, China is keen to show its achievement in its domestic practices of GI registration and protection, as well as how GIs have contributed to boosting its agriculture. For instance, SAIC and WIPO co-organized the 7th biennial International Symposium on GIs at Beijing in 2007 (WIPO/GEO/BEI/07) (WIPO 2007). During the International Symposium, Chinese representatives made clear the following: “China is

⁴² WIPO Working Group for the Preparation of Common Regulations under the Lisbon Agreement and the Geneva Act of the Lisbon Agreement, First Session, *Summary by the Chair*, LI/WG/PCR/1/5, June 9, 2016.

⁴³ The minutes of the SCT meetings are available at the WIPO website:
<http://www.wipo.int/policy/en/sct/>.

⁴⁴ WIPO SCT, Sixth Session. *Report*, SCT/6/6, December 5, 2001.

systematically engaged in the exploitation of GIs as a means of adding value to her agricultural products and boosting her rural economy” (March 2007).

One explanation for China’s muted engagement at the WIPO SCT is that SAIC represented China in GI-related events at WIPO SCT.⁴⁵ As mentioned in Section 3.3.3, SAIC established the trademark protection for GIs following the US model. Therefore, it is hard for the SAIC, as a trademark regulator, to input substantively for the negotiations on GI extension, even if the extension is in China’s interest. However, the SAIC can be active in disseminating its proven success in the use of trademark protection for GIs in China.

To summarize, if judging China’s engagement at WIPO on GI-related issues using the criteria of “rule-making” and “rule-taking”, one cannot define China either as a rule-maker or a rule-taker. Instead, China keeps its general interest in the progress of negotiations by sending observers to every conference but is relatively quiet in these sessions.

3.4.3 EU-China mutual recognition of GIs

China started negotiating its own bilateral Free Trade Agreements (FTAs) from 2003. GIs are an important part of Chinese FTAs because GIs are considered to be in China’s national interest. The EU and China have also started bilateral cooperation on GIs independent from the FTA channel. Unlike its ambiguous position on GI issues in multilateral fora, China shows its pragmatism in its bilateral negotiations on GI-related issues. Section 3.5.3 will examine the EU-China bilateral reciprocal arrangement on GIs, and Section 3.5.4 will analyses China’s FTA provisions on GIs with other states.

As mentioned in Chapter 2, the US has been putting high pressure on China in IP related issues in the last few decades. By contrast, the EU-China IP cooperation saved face for China instead of shaming China as a pirate. EU-China IP cooperation mainly takes the form of technical assistance (Crookes 2014), which focuses on training, capacity building, and disseminating experience of best practices (Drahoš 2008). EU-China IP cooperation is also implemented in a way that involves all relevant stakeholders, including IP regulators in levels of government, local IP enforcement agencies, and judges of IP tribunal at all levels.

EU-China IP cooperation is implemented by EU-China IP projects. So far, there have been three EU-China Projects on the Protection of Intellectual Property Rights: IPR (1999-2004), IPR2 (2007-2011), and IP Key (2013-2017). The EU-China IP projects focus on learning and capacity

⁴⁵ This mandate is manifested in the Memorandum between SAIC and WIPO in Further Strengthen Cooperation 工商总局和世界知识产权组织关于进一步加强合作的谅解备忘录 [*Gongshangzongju he Shijie Zhishichanquanzuzhi Guanyu Jinyibu Jiaqiang Hezuo de Liangjie Beiwanglu*] in 2010. Text of the Memorandum in Chinese is available at: http://www.gov.cn/gzdt/2010-04/27/content_1593670.htm.

building, setting up a long-term process of enculturation into the IP world: the EI-China IP projects “contributed to China gaining a greater appreciation and understanding of the values contributed to the economy by technology, and the importance of fostering technological growth through IP protection, and therefore helped raise IPR issues within the country’s domestic political agenda” (IPKey 2018).

EU-China IP cooperation projects played an important role in facilitating an EU-China arrangement on the mutual reconnection of GIs. So far, the major achievement on GIs between EU and China is the “10+10 Project” finalized in 2012. The 10+10 project was a reciprocal scheme where ten Chinese geographical names were registered and protected in the EU and labeled either as a Protected Designation of Origin (PDO) or a Protected Geographical Indication (PGI). Meanwhile, ten EU geographical names were registered in China as GI products and protected by the AQSIQ.⁴⁶ Following this pilot project, a similar “100+100” Project, where 100 geographical names will get recognition and protection as GIs in each other’s territory, is in progress.

The 10+10 project demonstrated some key features of EU-China cooperation on GIs. First, it provided channels for deeper integration. Relevant Chinese and EU GI regulators and users, rather than ministries in charge of trade and foreign affairs in general, met and discussed GI issues directly in these projects. Direct involvement of AQSIQ focused only on bilateral cooperation in GIs, a cooperation shielded from the broader considerations and trade-offs that typically occur in formal international cooperation with China through the Ministry of Commerce. Big issues in EU-China relations, such as the EU’s protective measures on the iron industry and the EU’s position of not recognizing China’s status as a market economy, are not relevant to this cooperation. Initially, AQSIQ and EC Directorate-General for Agriculture and Rural Development and Directorate for Trade signed conference minutes on bilateral GI cooperation in October 2006 (AQSIQ 2007). However, when the Ministry of Commerce (MOFCOM) became the coordinator for EU-China GI cooperation, it replaced AQSIQ as the key negotiator. The difference between MOFCOM and AQSIQ representing China in IP negotiations will be discussed in Chapter 8.2.4

⁴⁶ Ten EU GIs protected in China include: Grana Padano, Prosciutto di Parma, Roquefort, Pruneaux d’Agen/Pruneaux d’Agen mi-cuits, Priego de Córdoba, Sierra Mágina, Comté, White Stilton Cheese/Blue Stilton Cheese, Scottish Farmed Salmon, West Country Farmhouse Cheddar. The Chinese list of GIs protected in the EU comprises: Dongshan Bai Lu Sun 东山白芦笋(asparagus), Guanxi Mi You 琯溪蜜柚(honey pomelo), Jinxiang Da Suan 金乡大蒜(garlic), Lixian Ma Shan Yao 蠡县麻山药(yam), Longjing cha 龙井茶(tea), Pinggu Da Tao 平谷大桃(peach), Shaanxi ping guo 陕西苹果(apple), Yancheng Long Xia 盐城龙虾(crayfish), Zhenjiang Xiang Cu 镇江香醋(vinegar), Longkou Fen Si 龙口粉丝(vermicelli).

Secondly, the EU-China GIs cooperation manifested the pragmatism of the two parties. Since AQSIQ is only a ministry under State Council, it does not have the authority to sign international agreements. The EU-China cooperation on the 10+10 project was confined to the implementation level mutual recognition because there was no formal agreement between the EU and China. Based on the successful experience of the 10+10 project, a larger scale EU-China 100+100 project is in progress in which 100 geographical names from each side will be protected in the other's territory as GIs.

3.4.4 GI provisions in Chinese FTAs

Since 2003, China has signed fourteen FTAs with ASEAN, Pakistan, Chile, New Zealand, Singapore, Peru, Hong Kong, Macau, Costa Rica, Iceland, Switzerland, South Korea and Australia. In addition, another seven FTAs are under negotiation. Chapter 6 will analyze IP provisions in these Chinese FTAs systematically. This sub-section will focus on GI provisions in these Chinese FTAs. So far, nine Chinese FTAs contain provisions on GIs, including China-Chile FTA (2008), China-Peru FTA (2009), China-Costa Rica FTA (2010), China-New Zealand FTA (2008), China-Iceland FTA (2013), China-Switzerland FTA (2013), China-South Korea FTA (2015), China-ASEAN FTA (2002, update in 2015), and China-Australia FTA (2015).⁴⁷ The nine Chinese FTAs mentioning GIs can be divided into three categories:

- (1) those mentioning GIs in the definition of intellectual property;
- (2) those listing GIs for mutual recognition;
- (3) others.

3.4.4.1 Category I: FTAs mentioning GIs in the definition of intellectual property rights

In the China-New Zealand FTA (2008), China-Iceland FTA (2013), China-South Korea FTA (2015) and China-ASEAN FTA (2002, upgraded in 2015), GIs are mentioned in the definition of intellectual property. For instance, Article 63.2 of the China-Iceland FTA provides that:

For the purpose of this Chapter, the term “intellectual property rights” refers to copyright and related rights, rights in trademarks, geographical indications, industrial designs, patents, undisclosed information, layout designs of integrated circuits, and rights in plant varieties as defined in TRIPS.

This provision defines the concept of intellectual property rights with a reference to TRIPS. Since South Korea, Iceland, New Zealand and ASEAN countries are all WTO Members, GIs protection should be at least consistent with the standards in Article 22-24 of TRIPS. Other than this definition, there are no further provisions for a special mutual recognition mechanism of GIs in

⁴⁷ The full text of these FTAs are available in both English and Chinese at the website of Ministry of Commerce of China at http://fta.mofcom.gov.cn/georgia/georgia_agreementText.shtml.

these four FTAs. As a result, geographical names from one party have to go through the formal procedure of registration and examination in the other party, in order to be protected as a GI in the territory of the other party.

Generally, China adheres to TRIPS standards in its GIs negotiations. The reiteration of GIs is consistent with China's interests. In Chapter 6, the above FTA provisions on GIs are considered as passive defensive provisions (Chapter 6.2.1).

3.4.4.2 Category II: listing GIs for mutual recognition

The China-Chile FTA (2008), China-Peru FTA (2009), and China-Costa Rica FTA (2010) list specific geographical names to be recognized and protected in the territory of the other party. Article 116 of the China-Costa Rica FTA designates ten Costa-Rica GIs to be protected in China,⁴⁸ but the Chinese GIs to be protected in Costa Rica are not yet confirmed in the FTA text. Article 146 of the Peru-China FTA lists 22 Chinese GIs to be protected in Peru and four Peru GIs to be protected in China.⁴⁹ Article 10 in the China-Chile FTA lists two Chinese GIs to be protected in Chile and one Chile GI to be protected in China.⁵⁰ The standards of protection granted to these listed products are equivalent to TRIPS Article 22 protection for general products and higher-level Article 23 protection for wines and spirits. Some of the listed products are types of wines, including Shaoxing Wine, Pisco Perú, and Chilean Pisco, so they are granted higher-level protection as stipulated in Article 23 of TRIPS.

Despite their similarity in listing various type of GIs for mutual recognition and protection in the above-mentioned FTAs, these FTAs expand the scope of bilateral cooperation on GIs. For instance, both the China-Peru FTA (2009) and China-Costa Rica FTA (2010) contain a provision for possible extension of geographical names on the list through consultation by mutual consent

⁴⁸ The 10 ten Costa-Rica GIs include: (1) Banano de Costa Rica (Banana of Costa Rica), Café de Costa Rica (Coffee of Costa Rica), (3) Guanacaste Madera (wood), (4) Orosi (coffee), (5) Tres Ríos (coffee), (6) Turrialba (coffee), (7) West Valley (coffee), (8) Brunca (coffee), (9) Central Valley (coffee), and (10) Guanacaste (coffee).

⁴⁹ The 22 Chinese GIs include: (1) Anxi Tie Guanyin (Tieh-Kuan-Yin) Tea 安溪铁观音, (2) Shaoxing (Yellow) Wine 绍兴黄酒, (3) Fuling Pickled Mustard Tuber 涪陵榨菜, (4) (Ningxia) Zhongning Matrimony Vine (宁夏) 中宁枸杞, (5) Jingdezhen Porcelain 景德镇瓷器, (6) Zhenjiang Aromatic Vinegar 镇江香醋, (7) Pu'er Tea 普洱茶, (8) (Xihu) Longjing Tea (西湖) 龙井茶, (9) Kinghwa (Jinhua) Ham 金华火腿, (10) Shanxi Mature Vinegar 山西老陈醋, (11) Xuanwei Ham 宣威火腿, (12) Longquan Celadon 龙泉青瓷, (13) Yixing Dark-red Enamelled Pottery 宜兴紫砂陶, (14) Korla Fragrant Pear 库尔勒香梨, (15) Min County Tang-Kuei (Chinese angelica root) 岷县当归, (16) Wenshan Notoginseng 文山三七, (17) Wuchang Rice 五常大米, (18) Tongjiang White Fungus 通江银耳, (19) Bama Miniature Pig 巴马香猪, (20) Taihe Blackbone Chicken 泰和乌鸡, (21) Fuding Shaddock 福鼎四季柚, and (22) (Nanjing) Cloud-pattern Brocade (南京) 云锦. The four Peru GIs are (1) Pisco Peru (Pisco Perú), (2) Chulucanas Pottery (Cerámica de Chulucanas), (3) Cusco Giant White Corn (Maíz Blanco Gigante Cusco), and (4) Pallar Bean from Ica (Pallar de Ica).

⁵⁰ The Chinese GIs are Shaoxing Wine 绍兴黄酒 (wine) and Anxi Tieguanyin 安溪铁观音 (tea) (Annex 2A), and the Chile GI is Chilean Pisco (Annex 2B).

of the parties in the future. Moreover, the China-Costa Rica FTA (2010) includes a provision on GI regulatory collaboration through information exchange, cooperation on technical mechanisms and registration procedures.

The practice of including a list of GIs to be mutually recognized as GIs by the other party follows the EU model of GI provisions in FTAs (Engelhardt 2015). Interestingly, though Chile has vigorously opposed the proposal on the GI Register (TN/IP/W/10) and GI Extension (IP/C/W/386) at the WTO, it still managed to come to a bilateral arrangement for GIs with China within the current TRIPS framework.

3.4.4.3 Category III: miscellaneous

The China-Switzerland FTA (2013) and China-Australian FTA (2015) constitute the outliers of Chinese FTAs in terms of GIs. The China-Switzerland FTA (2013) foresees possible mutual recognition, while the China-Australia FTA confirms the legitimacy of trademark protection for GIs. The contrast between the two FTAs shows China's flexibility of approach on GIs in FTA negotiations.

In the China-Switzerland FTA (2013), the definition of GIs is the same as in TRIPS. In addition, it also introduces the concepts of appellations of origin and indications of sources (See Figure 5 of this Chapter for the scope of different concepts related to GIs). Footnote 18 of the China-Switzerland FTA clarifies that appellations of origin in Switzerland could be protected as GIs in China. Footnote 19 confirms indications of source are part of IP protection in Switzerland. However, Footnote 19 does not further clarify the relationship between indications of source and GIs. Considering the scope of indications of source is broader than GIs, it leaves space for further interpretation of whether indications of source could be recognized as part of intellectual property in China.

A specific provision on GIs in the China-Switzerland FTA is Article 11.13. This provision is ambiguous and may have different interpretations. Article 11.13.3 provides that:

*Without prejudice to Articles 22 and 23 of the TRIPS Agreement, the Parties shall take all necessary measures, in accordance with this Agreement, **to ensure mutual protection** of the geographical indications referred to in paragraph 2 that are used to refer to goods originating in the territory of the Parties. Each Party shall provide interested parties with the legal means to prevent the use of such geographical indications for identical or similar goods not originating in the place indicated by the geographical indication in question.⁵¹*

The term “mutual protection” in the first sentence of Article 11.13.3 may introduce ambiguity because the text itself does not clarify the requirement for such mutual protection, in particular,

⁵¹ Highlights are added by the author.

whether registrations are needed for a product from the other party to enjoy such mutual protection. Wenfei Attorneys-at-Law Ltd. (2013, 12) interpreted this provision to mean that “the FTA allows for a comprehensive protection of indications of source, country names and flags with regard to all goods and services”. However, Footnote 20 in Article 11.13.1 provides “Parties may require an indication to be registered in accordance with respective legislation and regulation on geographical indications in order to enjoy legal protection as a geographical indication.” Combining Footnote 20 and the main text of Article 11.13.1, a proper interpretation for this article is that both parties agreed to provide protection for GIs from the other party when these had already been registered with competent regulators. This interpretation makes more sense if we consider the desire of China to avoid any possible TRIPS-plus requirement in its FTAs. Though Article 11.13.3 explicitly mentions “mutual protection”, a wide reading of this protection for GIs will trigger the application of Most-favored Nation (MFN) principle. That means China has to protect GIs from all WTO Members on a reciprocal basis. If registration is not a requirement in order for the obligation of mutual recognition and protection to operate, China and Switzerland would be taking on extensive duties of protection. Ironically, if we do consider registration as a requirement for mutual protection, such protection already exists according to TRIPS for both parties.

It seems that the second sentence of Article 11.13 in the Chinese-Swiss FTA is a TRIPS-plus requirement because protection for the GIs is based on the logic of *terroir*, not the trademark doctrine of misleading consumers (see Section 3.1.2). However, this sentence is not as specific as Article 23 TRIPS which prohibits various ways of using GIs following the logic of *terroir*. Therefore, whether products beyond wines and spirits could be protected on a level equivalent to Article 23 TRIPS needs to be further clarified.

If the China-Swiss FTA stands at the expansive end of the spectrum of Chinese FTA provisions on GIs, the China-Australia FTA stands at the other end, representing the most flexible protection for GIs. Article 11.15 of China-Australian FTA provides: “Each Party recognizes that geographical indications may be protected through a trademark or sui generis system or other legal means.” In practice, GIs (except for wine GIs) are protected by the trademark system in Australia. Since FTAs may not exempt a party from its TRIPS obligations, the term “may be protected” may not be interpreted as a choice of protecting or not protecting. Instead, it should be interpreted as a choice concerning a legal mechanism to implement such protection.

The flexibility of trademark protection and *sui generis* protection in the China-Australia FTA, though compatible with the Chinese domestic systems, may cause problems with China’s commitment to the China-Switzerland FTA. Imagine the following examples: (1) a type of cheese that is protected as a GI in Switzerland (Product A) and is exported to the Chinese market and has been registered and approved as a GI to be protected in China; and (2) another Australian cheese

(Product B), using the same geographical name as product A is also exported to China. To comply with the China-Switzerland FTA (Sentence 2, Article 11.13.3, see above quotation), China should prevent the Australian product from using the registered Swiss name. Meanwhile, China is also committed to allowing imports into China in accordance with the China-Australia FTA. Similar conflicts are possible since China is to negotiate more FTAs with both Old World and New World countries. The same difficulty in reconciliation is seen with South Korea's FTA with the EU and the US respectively (O'Connor 2014).

The GI provisions in Chinese FTAs provides a valuable opportunity from a regulatory perspective to explore China's true interest in GIs, and its willingness to involve itself in rule-making on bilateral and multilateral levels. Instead of a uniform template, the GI provisions in Chinese FTAs demonstrate different patterns when China negotiates with different parties. The diversity of Chinese FTAs text in terms of GI provisions indicates the pragmatism of China in FTAs negotiations.

Such pragmatism is also evident in FTAs where GIs are intentionally not mentioned or dealt with in detail. Considering the homology in culture between China and South Korea, there have already been conflicts between Chinese and South Korean producers concerning GIs in practice. For instance, though South Korean Kimchi has been listed as a cultural heritage item by UNESCO and registered as a GI in South Korea, the same/similar process to season vegetables has been extensively used in North-eastern China for centuries, and Kimchi 泡菜 [*Paocai*] is used as a generic name in China (Cheng 2014). In another instance, while Chinese Ginseng *Changbai Mountain Renshen* 长白山人参 is a registered GI in China and South Korean Ginseng a registered GI in South Korea (Na and Wei 2013), they are essentially the same products originating from Changbai Mountain on the China-North Korea border. In other words, the geographical conditions determining the qualities or other characteristics of the products are the same, but they are registered as different GIs in different states only because the origin of the products are demarcated by the border of states. Recognizing GIs by either party will impair the competitive advantage of the domestic products. In the final text of the China-South Korea FTA, the two parties shelved the controversies surrounding these GIs by only mentioning the term in the definition of intellectual property.

3.4.5 Summary of China's positions

China began to engage with the international GI system only after its domestic GI systems had been established. With three independent systems for GIs protection in place after 2007, China acknowledged that GI protection will offer added-value to its farmers and is in China's interest. On this basis, China joined the EU and other developing countries to submit the TN/C/W/52

proposal at the WTO, experimented with a mutual recognition mechanism for GIs with the EU, and incorporated lists of GIs for mutual protection in its FTAs with Chile, Peru, and Costa Rica.

The US-EU contestation over international rule-making for GIs has been intensified in the post-TRIPS era. China developed subtle and sophisticated positions at the multilateral level. First, while making a coalition with the EU to co-sponsor the TN/C/W/52 proposal, China supported the US position in applying domestic law to regulate the use of GIs as generic names. Secondly, while China joined the EU in co-sponsoring the TN/C/W/52 proposal, its proposal of combining the negotiation of GI Extension and the GI Register together reflected its own preference on GI Extension.

At the bilateral level, the frequent reference to TRIPS in the definition of GIs in Chinese FTAs indicated China's preference for the WTO, at a time when the US is actively pursuing TRIPS-plus standards through FTAs. Thus, the GI provisions in Chinese FTAs serve the overall goal of Chinese FTAs to make the promise of trade deliver for China. In addition, Chinese FTAs are flexible and diversified, extending from a commitment to preventing "the use of GIs for identical or similar goods not actually from the place of GIs" (China-Switzerland FTA) to allowing flexibility to choose trademark protection or *sui generis* protection (China-Australia FTA). Between these polarized positions, three Chinese FTAs also pragmatically incorporated lists of GIs for mutual recognition and protection. The diversified positions of China at the multilateral level and bilateral level can be considered as an example of China's strategy of dissembling in its international IP engagement (Chapter 10.3.1).

3.5 Conclusion

The international GI system is characterized by rule complexity and fragmentation. This has everything to do with the EU and US clash over protection standards (TRIPS Article 22 versus Article 23) and which legal mechanism (*sui generis* or trademark) should have priority in the wine/food domains. The condition of hegemonic stability that characterized the origins of TRIPS has been replaced by one fractured hegemony. It is very difficult to impose fine-grained positive rules on states under conditions of fractured hegemony. As pointed out by Braithwaite and Drahos (2000, 27), "when the US and EC can agree on which direction global regulatory change should take, that is usually the direction it does take." Arguably, when the US and the EU cannot agree, the opportunities for other states include: (1) developing a middle power strategy to make coalitions to push forward one standard or (2) taking standards both from the EU and the US.

Looking at the domestic level, China, like other East Asian Countries (Japan and South Korea), established dual protection systems for GIs under the influence of both the EU and the US. Three independent systems for GIs protection were established under the regulation of SAIC, AQSIQ,

and MOA. This is a typical case of how power contestation at the international level introduced legal fragmentation to national laws.

At the international level, China is behaving like a middle power to ally with the EU and other developing countries to promote a rival standard. China is interested in international GI rule-making. With over 3,000 plus GIs registered in China, the GIs systems have been used as an instrument to promote farmers' income and it is generally in China's interest to promote higher protection for GIs for products beyond wines and spirits. In this sense, China holds the same position as other developing countries in the international GI negotiations. Though China joined the EU in promoting negotiations on the GI Register and GI Extension, it strategically promoted its own interest in GI Extension by proposing linking the negotiations. It also reiterated the principle of state sovereignty to respect the interests of the US. Bilaterally, China has been flexible about its GI rules on the basis of reciprocity.

Though China has engaged in international GI regulation for more than one decade, it plays more a role as a quiet intervener and coalition partner, than a rule-maker. This is so for several reasons. First, China's GI engagement is motivated by its national interest. In the EU-US contestation over global GI rule-making, it is the EU that has promoted a rival standard of GIs at various levels. The US has resisted the EU's attempts effectively, at least at the multilateral level. While China appeared to join the EU in the TN/C/W/52 proposal, its interest lies in GIs Extension and differs from the EU's enthusiasm for the GI Register.

Secondly, because of cultural differences, Chinese GIs have a better reputation within the Chinese market, and the Chinese market itself is huge. Currently, the producers' focus on the domestic market will not incentivize the Chinese government to push for higher global standards for GI protection. This will only happen when large volumes of Chinese food and agricultural products enter the global market.

Thirdly, the fragmented and competing regulatory systems for GIs within China have hindered China's strategic and systematic GI engagement internationally. China delegated agencies from different ministries to negotiate GIs at different international fora. Multilaterally, WTO-related issues are generally negotiated by the Department of WTO at MOFCOM; WIPO SCT negotiations have been followed up by SAIC. On the bilateral level, SAIC developed its transnational cooperation with countries that support the use of the trademark system for GIs, while AQSIQ cooperated with countries that have interests in the *sui generis* system. The EU-China projects on GI mutual recognition has been facilitated by the EU-China IP projects, directly negotiated by MOFCOM and implemented by AQSIQ while Chinese FTAs are negotiated by MOFCOM.

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Chapter 4 China Engages in the Disclosure Obligation

4.1 Introduction

As a second case study in this thesis, this chapter will explore how China has engaged international regulation concerning the disclosure obligation in patent applications. “Disclosure obligation” refers to the mandatory requirement to disclose the origin of genetic resources in a patent application. If the invention is finished relying on any genetic resources; non-compliance will have legal consequences.

The disclosure of origin or source of genetic resources in patent applications lies at the intersection of the international regulation of genetic resources and the international regulation of intellectual property. Section 4.1.1 will provide justification of the choice of China’s engagement in the disclosure obligation as a case study for this thesis. Section 4.1.2 will introduce the position of the disclosure of the origin of genetic resources at the intersection between the regulation of genetic resources and intellectual property. Section 4.1.3 will summarize the general debates over the disclosure of the origin of genetic resources.

4.1.1 China’s engagement with the disclosure obligation as a case study

Disclosure obligation is selected as a specific issue area for China’s engagement with the international IP system for the following reasons. First, China as one of the megadiverse countries in the world is rich in genetic resources. According to *National Biodiversity Conservation Strategy and Action Plan of China* (2011-2030).¹

China is one of the 17 megadiverse countries in the world. China is the home of territorial ecosystems in the form of forest, shrub, meadow, steppe, desert, wetland, as well as marine ecosystems including the Yellow Sea, East China Sea, South China Sea and Kuroshio Basin. China has up to 34,984 species of higher plants, ranking the third in the world; China also has 6,445 vertebrate animal species, accounting for 13.7% of the total species in the world; the fungi species known in China are more than 10,000, making up 14% of the total in the world.

The quotation indicates China has a clear national interest in protecting its genetic resources from misappropriation and embracing multilateral negotiations on the disclosure obligation. China is

¹ Ministry of Environment Protection issued Notice Concerning issuing the National Biodiversity Conservation Strategy and Action Plan of China (2011-2030) 关于印发《中国生物多样性保护战略与行动计划》(2011-2030年)的通知 [Guanyu Yinfazhongguo Shengwu Duoyangxing Baohu Zhanlüe yu Xingdong Jihua (2011-2030nian) de Tongzhi], No. 106 (2010) 环发(2010)106号 [huanfa (2010) 106 hao].

one of the Like-Minded Megadiverse Countries² (LMMC) in international negotiations on topics related to the protection of genetic resources. Therefore, China has clear incentives to actively engage international regulation of the disclosure obligation, one of the key issues to guarantee sufficient protection of genetic resources.

Secondly, discussions and negotiations concerning disclosure obligation took place at various levels. At the multilateral level, the disclosure of the origin of genetic resources was negotiated at the WTO TRIPS Council and the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC). It is included in several Chinese FTAs. It is adopted by the Chinese *Patent Law* (2008) at the domestic level. Minutes of meetings at TRIPS Council and WIPO IGC and text of FTAs and domestic regulations provide first-hand data to analyze China's position on this issue.

Thirdly, the disclosure obligation is an area that the US and the megadiverse countries have continuously contested in international rule-making. In contrast to most international IP standards that eventually become international standards, the disclosure obligation was not initiated by the US or EU but by the megadiverse countries as a rival standard. This standard was opposed by the US and other developed countries such as Australia, Canada, Japan and South Korea. The EU takes a hedging position by proposing a more naturalized agenda on this issue. Therefore, the debates and negotiations on the disclosure obligation provide a unique opportunity to explore how China, as one of the megadiverse countries and a major economic power, promotes a rival standard.

Fourthly, the disclosure obligation is a lively and debated issue after TRIPS. As mentioned in the methodology (Chapter 1.6.2), it is one of the few cases in which China could become a rule-maker as a latecomer to the international IP system. Indeed, China incorporated the disclosure obligation into its domestic law before any international agreement was reached on this issue. Hence, the investigation of China's position on this issue will reveal China's potential to engage alternative rule-making in promoting access.

4.1.2 Why disclosure of origin is important

The disclosure of origin of genetic resources is part of the broader issue of the overlap between international regulation of genetic resources and international regulation of intellectual property.

² The Group of LMMC was set up in 2002 by 17 countries including Bolivia, Brazil, China, Colombia, Costa Rica, Democratic Republic of the Congo, Ecuador, India, Indonesia, Kenya, Madagascar, Malaysia, Mexico, Peru, Philippines, South Africa, and Venezuela. These countries have about 70% of the Earth's species. The LMMC was established to promote consultation and cooperation related to the preservation and sustainable use of biological diversity.

Understanding the overlap, especially the direct legal basis in international law, builds a foundation to analyze positions held by different states on the disclosure of origin.

Genetic resources refer to any material of plant, animal, microbe or other organism containing functional units of heredity that has actual or potential value.³ Along with the expansion of colonialism, the 19th century international law tended to consider genetic resources as the “common heritage of the humankind”. Following this rationale, the exploitation of genetic resources was free for everyone. For instance, during the 19th century, the Chinese kiwifruit was first introduced by missionaries to New Zealand (Zhang 2008) and there were no international laws prohibiting such practice at that time. This makes it difficult to claim that the practice was unauthorized.

Free exploitation of genetic resources and related traditional knowledge from indigenous communities in their territories continued after WWII. Countries rich in genetic resources framed such misappropriation as bio-piracy.⁴ Typical cases of misappropriation include Basmati, Bolivian Habanero Pepper and Artemisia Judaica (Robinson 2012). When big pharmaceutical companies seek patent monopoly control over inventions using these genetic resources and traditional knowledge, the contestations over “who owns the genetic resources” have been intensified. The megadiverse countries made a coalition to promote state sovereignty over genetic resources.

State sovereignty over genetic resources was established as a principle in the Convention on Biological Diversity (CBD)⁵ and revised International Undertaking on Plant Genetic Resources (IUPGR) and International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA).⁶ State sovereignty does not equal state ownership (Roa-Rodríguez and Van Dooren 2008). It confirms that states have powers of command over the genetic resources. The CBD also

³ This definition is made on the basis of WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) 29th Session, *Consolidated Document Relating to Intellectual Property and Genetic Resources*, WIPO/GRTKF/IC/29/4, November 30, 2015. The CBD tends to interpret the concept of genetic resource more broadly, which could either be the genetic structure per se can be utilised; or the information encapsulated in the nucleotide sequence of the genetic material can be read and digitalized and easily acquired (Schei and Tvedt 2010).

⁴ Robinson (2010, 21) distinguishes patent-based bio-piracy and non-patent based bio-piracy. In terms of terminology, this chapter uses the term misappropriation to describe the problem of unauthorized exploitation to avoid the stigmatization associated with “bio-piracy”.

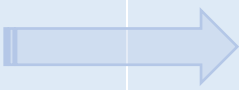
⁵ *Convention on Biological Diversity* (CBD) governs the international protection of plant genetic resources. The principles of state sovereignty can be located in the 5th paragraph of the Preamble and Article 3 of the CBD.

⁶ Both treaties are administered by the Food and Agriculture Organization (FAO), and they are governing genetic resources for food and agriculture (PGRFA). For a detailed discussion of the international regulation of plant genetic resources for food and agriculture, see Gerstetter et al. (2007).

sets access and benefit-sharing (ABS)⁷ as one of its objectives. To achieve the objective of ABS, any exploitation of genetic resources needs authorization: prior informed consent (PIC) must be obtained from relevant government authorities and local communities (Perrault, Herbertson, and Lynch 2006). The prior informed consent (PIC) is the evidence that a local community consents to people from outside of the community to have access to a certain genetic resource. It is also the basis upon which the local community can later claim benefit-sharing of this genetic resource when it generates values.

Considering that the value of genetic resources is often crystallized as a patent right, the principles of the CBD become relevant to rules of intellectual property, in particular, TRIPS and the International Convention for the Protection of New Varieties of Plants (UPOV Convention). Table 7 shows the evolving international laws relevant to the determination of ownership of genetic resources.

Table 7 Evolution of the International Rules on Ownership of Genetic Resources⁸

	Common heritage of mankind	Property rights	
		Sovereign (state-controlled)	Private and community right
Genetic resources in general	Traditional 19 th -century system	CBD Nagoya Protocol	TRIPS UPOV Convention
Genetic resources of food and agriculture	IUPGR (1983) ITPGRFA	1991 revision to the IUPGR ITPGRFA (other worked)	TRIPS ITPGRFA (other raw)
Genetic resources beyond territories of states			

The CBD is a framework treaty that by itself cannot achieve the objective of ABS. It needs to be underpinned by a more detailed system of rules that help to define ownership and right to use. Considering the CBD has already set up the principle of state sovereignty over genetic resources, the next step is to obtain authorization from the local communities. The disclosure obligation is one of the proposed mechanisms to guarantee that such authorization is granted properly. Along

⁷ Access and benefit-sharing refers to the way genetic resources may be accessed, and how benefits resulting from their use are shared between the people or countries using the resources (users) and the people or countries that provide them (providers). ABS is based on prior informed consent (PIC) being granted by a provider to a user and negotiations between both parties. ABS is one of the three objectives of CBD, and is stipulated in detail in the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (Nagoya Protocol).

⁸ Data source: Raustiala and Victor (2004).

with the debates over the specific mechanisms, there is also a debate over whether this issue should be governed by national law or international law.

4.1.3 The debates over the disclosure of origin of genetic resources

Given that the focus of the case study is the disclosure obligation in patent law, an overall examination of the regime complexity in the international regulation of genetic resources and intellectual property (Raustiala and Victor 2004), the contract-based voluntary mechanism, and disclosure requirement in the application of intellectual property other than patents (plant variety rights) are beyond the scope of the chapter. However, as a general background for the discussion of the disclosure obligation this section will summarize the broader debates concerning the disclosure of origin of genetic resources. So far, the debates concerning the disclosure of origin of genetic resources have concentrated on three issues: (1) whether embedding disclosure into the patent law is the solution to guarantee the ABS; (2) whether the disclosure should be voluntary or mandatory; and (3) whether international consent on this issue is necessary.

4.1.3.1 Is patent law a solution to guarantee access and benefit sharing?

Considering that the major economic benefits for genetic resources are derived from the exclusivity of intellectual property rights (in particular patent rights), the megadiverse countries proposed the disclosure solution to prevent misappropriation through the patent system.⁹

Disclosure has been one of the fundamental principles in the history of patent law. According to the social contract theory, patent holders can only obtain a certain period of monopoly for an invention, on the condition of adequate disclosure of the technical information encapsulated in the invention. During TRIPS negotiations, the article on disclosure mainly followed the model of US law. The working obligation proposed by developing countries¹⁰ was not incorporated in the final text of TRIPS. An early draft of the *Substantive Patent Law Treaty* (SPLT) negotiated at WIPO included a rule requiring “sufficiently clear and complete disclosure for the invention to be carried out by a person skilled in the art”.¹¹ Due to lack of consensus among members, negotiations of the SPLT have been on hold since 2006. The disclosure requirement negotiated at these multilateral fora, however, is a general requirement to balance the interest between the patent right holders and the public. They are not specific to the disclosure of the origin of genetic resources used in the invention discussed in this chapter.

⁹ WTO TRIPS Council, *The Relationship Between the TRIPS Agreement and the Convention on Biological Diversity: Summary of Issues Raised and Points Made*, Note by the Secretariat, IP/CIW/368/Rev.1, February 8, 2006.

¹⁰ The proposal of working obligation was reflected by the Brussel Text of December 1990. For more detailed discussion of the negotiation process, see Hiroko (2011).

¹¹ Articles 11, Alternative A of the SPLT. See WIPO Standing Committee on the Law of Patents (SCP), Fifth Session, *Draft Substantive Patent Law Treaty*, SCP/5/2, April 4, 2001.

Specific to the disclosure of the origin of genetic resources, the megadiverse countries proposed that once a patent relying on genetic resources has been published, the relevant indigenous community could further check whether this patent was based on the use of PIC and so open the way to a claim for benefit-sharing. In other words, information disclosed in the patent application is the key evidence as to whether there are benefit-sharing obligations if the national law has already established the ABS mechanism.

Inside the patent system, the megadiverse countries proposed the disclosure of origin of genetic resources to be the part of the substantive requirement for patent examination. It means that in the case of non-disclosure, the patent will not be granted for an application under examination, or a granted patent will be invalidated. However, the US opposed this proposal of linking the protection of genetic resources to patent law. It proposed a contract-based approach that considers the PIC a contract between the external exploiter of a type of genetic resource and the local community, the idea being that the local community can claim ABS later on the basis of this contract.

4.1.3.2 *Voluntary disclosure versus mandatory disclosure*

Dutfield (2005) has distinguished two types of disclosure of origin, mandatory disclosure (disclosure obligation) and voluntary disclosure according to burdens posed on patent applicants. Disclosure obligation mandates the disclosure of the origin of genetic resources in a patent application, and non-compliance will have legal consequences. A voluntary mechanism mainly involves the contract-based approach where disclosure is voluntary, and no legal consequences will occur other than the obligation for non-compliance o contracts (Table 8).

Table 8 Legal Mechanisms in Patent Law for the Disclosure of Origin

	Voluntary disclosure	Mandatory disclosure (disclosure obligation)
National law	Disclosure of the origin of genetic resources is voluntary	Disclosure of the origin of genetic resources is mandatory
	-No legal consequences for non-disclosure -Non-compliance with the ABS is a breach of contract	In the case of non-disclosure: - patent application rejected; granted patent invalid or unenforceable; or - other civil and criminal consequences result from non-compliance.
International law	Not necessary	Proof of legal acquisition

The proponents of voluntary disclosure argue a binding mechanism is not the only way to achieve the goal of ABS. The US proposed “national based approaches” to the WTO,¹² which included measures of permits, contractual obligations, visa systems, and civil and criminal penalties for non-compliance. The national-based approach applies the same logic as the above-mentioned contract-based approach. The problem with this contractual approach, as pointed out by some megadiverse countries, is that the equitable and fair benefit sharing is unlikely to be achieved because of asymmetric negotiating power and the lack of transparency.

4.1.3.3 International law versus national law

The law-making on the disclosure of origin started at the national level. For instance, Indian *Patent Act of 2002 (Second Amendment)* provides that non-disclosure or wrongful disclosure of origin of biological resources in a patent application will lead to rejection of the application or revocation of the patent if it is granted. Regionally, the Andean Group established the “Common Regime on Access to Genetic Resources” to promote access.¹³ These practices and initiatives gradually associated the old patent law doctrine of disclosure with the protection of genetic resources, by incorporating disclosure of origin of genetic resources as a requirement in patent law.¹⁴

In most cases, the problem of misappropriation is a transnational infringement: the patent holders are not coming from the same country as the indigenous communities. In these cases, a mandatory requirement at the national level is not enough. That is why an international consensus on the proof of legal acquisition and other international coordination is the best option to tackle the problem (Dutfield 2005). A binding international rule will also help to coordinate the variegated legislations and practices of countries on the disclosure of origin at the national level, in particular, on issues of whether disclosure should be considered as a substantive versus formal requirement for patent application, the legal consequences of non-disclosure and the scope of information to be disclosed. However, such consensus is difficult because the US, home to many big biopharmaceutical companies, opposes any type of international law to govern this issue.

After clarifying the critical issues of the debate concerning the disclosure obligation, Section 4.2 will provide an overview of the multilateral negotiations on the disclosure obligation. Section 4.3-4.5 will analyze China’s international engagement on the disclosure obligation in three stages.

¹² WTO TRIPS Council, IP/CIW/368/Rev.1. See *supra* note no. 9.

¹³ Andean Community, *Decision No. 391 establishing the Common Regime on Access to Genetic Resources*. Decision No. 391 was issued in Caracas, Venezuela by the Commission of the Cartagena Agreement (the Commission of the Andean Community) on July 2, 1996. It was published in the Official Gazette of the Cartagena Agreement No. 213 of July 17, 1996, in Lima, Peru.

¹⁴ In addition to genetic resources, megadiverse countries also promoted the disclosure of origin of traditional knowledge or traditional knowledge associated with genetic resources.

Section 4.3 will examine how China navigated the multilateral negotiations on the disclosure obligation at WTO and WIPO after its accession to the WTO. Section 4.4 will analyze how China, informed by the multilateral debates, engaged its domestic legislative process as exemplified by the amendment of the *Patent Law* (2008). Section 4.5 will investigate the post-patent law engagement, both at the multilateral and bilateral levels, to see how the domestic legislation has fed back to its international engagement.

4.2 Multilateral negotiations on the disclosure obligation

This section sets the scene for the case study by analyzing multilateral negotiations on the disclosure obligation after TRIPS. Section 4.2.1 will summarize different categories of opinions at TRIPS council, and Section 4.2.2 will trace the multi-forum negotiations at TRIPS Council to the WIPO IGC.

4.2.1 A spectrum of positions on the disclosure obligation

Though international laws are non-hierarchical in general, Article 16.5 CBD provides a guide to the relationship between intellectual property laws and the CBD:

*The Contracting Parties, recognizing that patents and other intellectual property rights may have an influence on the implementation of this Convention, shall cooperate in this regard subject to national legislation and international law in order to ensure that such rights are supportive of and do not run counter to its objectives.*¹⁵

Megadiverse countries proposed at the WTO forum that TRIPS and CBD are in conflict with each other. They further proposed the disclosure obligation as a solution to reconcile the conflict by subordinating intellectual property law to ABS, one of the CBD objectives. Most developed countries do not recognize the conflict because the text of the CBD does not contain a clause expressly overriding intellectual property rights in the case of express inconsistency. As a result, the necessity to incorporate the disclosure obligation into the international and national laws becomes questionable.

The TRIPS-CBD relationship was incorporated as one of the outstanding implementation issues into the Doha Round work program. The disclosure obligation has been proposed as a solution to the conflict. As a result, the TRIPS Council became the forum for the discussion of the disclosure obligation since 2002, following the *Doha Ministerial Declaration*.¹⁶ However, these discussions were informal, and the disclosure obligation has not been negotiated as an independent issue. India, Brazil and other megadiverse countries, including China, endeavored to promote text-based

¹⁵ Article 16.5 of CBD.

¹⁶ Paragraphs 12 and 19 of the WTO Doha Ministerial Declaration.

negotiations on the disclosure obligation,¹⁷ but the efforts failed in 2006. Since then, discussions on the disclosure obligation have remained part of the Director-General's consultative process, and no substantive negotiations on this issue have taken place.

There are three categories of opinions on the disclosure obligation among WTO Members (Table 9). First is the need for a strong disclosure obligation on the basis that there is an inherent conflict between TRIPS and CBD. India first proposed the possibility of disclosure obligation as a solution to the relationship between TRIPS and CBD.¹⁸ Brazil added support to India's initiative by further specifying that Article 27.3 TRIPS should be amended to include evidence of PIC as a condition for patentability.¹⁹ After the *Doha Ministerial Declaration*, more megadiverse countries associated with India and Brazil with a clearer agenda of disclosure of origin by adding a new Article 29bis to TRIPS dedicated to the disclosure of origin of genetic resources.²⁰

The second category is a weak disclosure obligation supported by the EC, Switzerland, and Norway, arguing that there need be no inherent conflict between the two agreements, but the disclosure requirement could be included in the patent application procedure as a formal requirement. Accompanying this position of non-conflict between CBD and TRIPS, the EC and Switzerland also proposed that WIPO IGC should be a proper forum for related discussions or negotiations. Nonetheless, both the EC and Switzerland played a cross-forum game and

¹⁷ WTO General Council, Trade Negotiations Committee, TRIPS Council, *Doha Work Programme – the Outstanding Implementation Issue on the Relationship between the TRIPS Agreement and the Convention on Biological Diversity*, Communication from Brazil, China, Colombia, Cuba, Pakistan, Peru, Thailand and Tanzania, IP/C/W/474 (also circulated as WT/GC/W/564/Rev.2 and TN/C/W/41/Rev.2), July 5, 2006.

¹⁸ WTO TRIPS Council, *Proposals on Intellectual Property Rights Issues*, Communication from India, IP/C/W/195, July 12, 2000. See Para. 16 of this communication.

¹⁹ WTO TRIPS Council, *Review of Article 27.3 (b)*, Communication from Brazil, IP/C/W/ 228, November 24, 2000. See Para. 25 of this communication.

²⁰ WTO TRIPS Council, *The Relationship between the TRIPS Agreement and the Convention on Biological Diversity and the Protection of Traditional Knowledge*, Communication from Brazil, China, Cuba, Dominican Republic, Ecuador, India, Pakistan, Thailand, Venezuela, Zambia and Zimbabwe, IP/C/W/356, June 24, 2002. See Para 10 of this communication. Also see IP/C/W/474, *supra* note no.17.

strategically involved both fora of WIPO and WTO.²¹ Norway also supported the view that disclosure should be a formal requirement. However, in contrast to the EC and Switzerland, Norway proposed to amend TRIPS to incorporate the disclosure obligation.

In 2008, the EU and Switzerland joined the developing countries to support starting negotiations on the disclosure obligation in *Draft Modalities for TRIPS Related Issues* (TN/C/W/52).²² Over two-thirds of WTO Members co-sponsored this proposal. As discussed in Chapter 3, the GI Register and GI Extension are the other two issues included in this proposal. This proposal was intended to balance the different interests. It did not mention the discrepancy between the megadiverse countries and the EU on this issue but focused on making a joint effort to promote text-based negotiations.

The third category of opinion was led by the US. The US proposed the contract-based approach to solving the problem of misappropriation.²³ The US also argued that the introduction of the disclosure obligation will neither guarantee the PIC nor prevent misappropriation, but add uncertainty to the patent system and introduce administrative burdens.²⁴ This argument was opposed by the megadiverse countries, who argued that the fact that the disclosure obligation is only one of the elements to prevent misappropriation should not be the reason to abandon this approach and take the alternative voluntary approach. Instead, a broader approach is necessary to coordinate the disclosure obligation with issues such as how to distinguish a certain origin when

²¹ The European Community proposed to the TRIPS Council and the WIPO IGC simultaneously. See TRIPS Council, *Review of Article 27.3 (B) of the TRIPS Agreement and the Relationship between the TRIPS Agreement and the Convention on Biological Diversity (CBD) and the Protection of Traditional Knowledge and Folklore*, Communication from the European Communities and Their Member States, IP/C/W/383, October 17, 2002; and WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, Eighth Session, *Disclosure of Origin or Source of Genetic Resources and Associated Traditional Knowledge in Patent Applications*, WIPO/GRTKF/IC/8/11, May 17, 2005. Switzerland first proposed to reform the PCT regulations to incorporate disclosure requirement at WIPO (PCT/R/WG/5/11) and then proposed to the TRIPS Council to gain support for this proposal at WIPO (IP/C/W/446). See WIPO International Patent Cooperation Union Working Group on Reform of the Patent Cooperation Treaty (PCT), Fifth Session, *Proposals by Switzerland Regarding the Declaration of the Source of Genetic Resources and Traditional Knowledge in Patent Applications*, PCT/R/WG/5/11, November 19, 2003; and WTO TRIPS Council, *The Relationship between the TRIPS Agreement and the Convention on Biological Diversity (CBD) and the Protection of Traditional Knowledge and Folklore and the Review of Implementation of the TRIPS Agreement Under Article 71.1*, Communication from Switzerland, IP/C/W/446, May 30, 2005.

²² WTO Trade negotiations Committee, *Draft Modalities for TRIPS Related Issues*, Communication from Albania, Brazil, China, Colombia, Ecuador, the European Communities, Iceland, India, Indonesia, the Kyrgyz Republic, Liechtenstein, the Former Yugoslav Republic of Macedonia, Pakistan, Peru, Sri Lanka, Switzerland, Thailand, Turkey, the ACP Group and the African Group, TN/C/W/52, July 19, 2008.

²³ WTO TRIPS Council, *Views of the United States on the Relationship between the Convention on Biological Diversity and the TRIPS Agreement*, Communications from the United States, IP/C/W/257, June 13, 2001, page 5-6.

²⁴ WTO TRIPS Council, *Article 27.3 (B), Relationship between the TRIPS Agreement and the CBD, and the Protection of Traditional Knowledge and Folklore*, Communication from the United States, IP/C/W/434, November 25, 2004, Page 2-5.

more than one is identified, and how to monitor patent publication from other countries and initiate the legal procedure. Table 9 shows the specific positions.

Table 9 Positions on the Disclosure Obligation in WTO and WIPO Proposals

The relationship between CBD and TRIPS	Representative supporters	Proposals	Positions related to the disclosure obligation
Inherent conflict	African Group, Brazil, China, Colombia, Ecuador, EC, India, Indonesia, Peru, Thailand, Turkey, Venezuela,	IP/C/W/195 IP/C/W/284 IP/C/W/356 IP/C/W/403 IP/C/W/420 IP/C/W/429 IP/C/W/438 IP/C/W/441 IP/C/W/442 IP/C/W/443 IP/C/W/459 IP/C/W/470 IP/C/W/474 IP/C/W/475 TN/C/W/52 TN/C/W/59	-Two proposals (1) Amend Article 27.3(b), incorporating disclosure of origin as well as PIC and ABS as part of the requirement for patentability. (2) Amend Article 29bis of TRIPS to incorporate the disclosure of origin as part of the disclosure obligation. - The nature of disclosure should be substantive: without disclosure, the patent application will not be processed before being granted or be invalidated after granted. - The scope of information to be disclosed is extensive, including associated traditional knowledge.
- No inherent conflict; but - International action should be enhanced in relation to the patent system to ensure implementing the mutual supportiveness of both Agreements	EC, Norway, Switzerland	Switzerland: IP/C/W/284 IP/C/W/400 IP/C/W/423 IP/C/W/433 IP/C/W/446 Norway: IP/C/W/473 IP/C/W/491 European Communities: IP/C/W/383 WIPO/GRTKF/IC/8/11 (proposal to the WIPO IGC) TN/C/W/52	Disclosure obligation with three proposals: - Amend Patent Cooperation Treaty (PCT) to explicitly incorporate the disclosure obligation (Switzerland); - Amend existing international legal framework for patents, such as the proposed Patent Law Treaty (PLT), or the Patent Cooperation Treaty (PCT) to incorporate the disclosure obligation. Disclosure should be a formal requirement in patent applications (EC); - Amend Article 29 TRIPS to incorporate the disclosure obligation. Disclosure is the formal requirement and penalties incur for non-compliance outside the patent system (Norway).
No conflict	Australia, Canada, Japan, South Korea, United States, New Zealand	IP/C/W/257 IP/C/W/434 IP/C/W/449 IP/C/W/469	- No amendment of TRIPS; - No disclosure obligation; - Alternatively, tailored national solution based on contracts is recommended.

Note: red text indicates proposals co-sponsored by China.

The three categories of opinion on the disclosure obligation can be seen as a spectrum of options for the disclosure obligation and depicted as such (Figure 10).

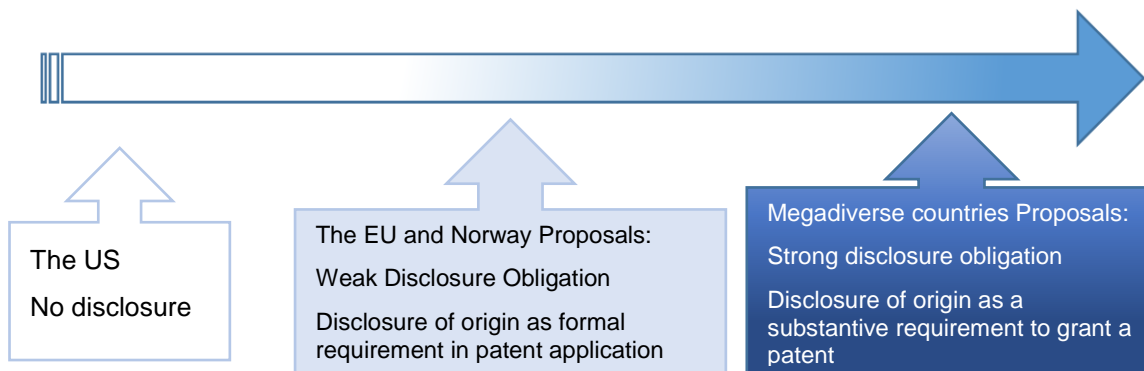


Figure 10 the Spectrum of Opinions on the Disclosure Obligation

To date, no consensus on the disclosure obligation has been reached in these WTO negotiations. That means WTO Members are free to decide on: (1) whether to introduce the disclosure obligation into their domestic law, and (2) a specific mechanism for the disclosure, either in its weak form or strong form.

4.2.2 Disclosure obligation negotiations: from TRIPS to WIPO

In parallel with negotiations on the disclosure obligation at the TRIPS Council, the WIPO IGC was established in 2001 and gradually became another forum for the negotiation of the disclosure obligation. Disclosure obligation was one of the key issues at the IGC. So far, IGC has held 37 meetings on issues related to genetic resources, traditional knowledge, and folklore.

The EU and Switzerland first proposed the disclosure obligation to IGC because this forum could best accommodate their positions of recognizing disclosure as a formal requirement in patent applications and avoiding discussion of the controversial issue of the CBD-TRIPS relationship. This initiative also gained support from Canada,²⁵ Japan, and New-Zealand²⁶ who denied conflict between the TRIPS and the CBD.

The developing countries initially opposed negotiations at the WIPO IGC. They emphasized that the WIPO IGC and TRIPS Council have different mandates, in particular, an examination of the relationship between TRIPS and CBD is a mandate specific to WTO Members²⁷ and so the TRIPS Council should be the main forum for related negotiations. However, some developing countries

²⁵ WTO TRIPS Council, *Minutes of the Meeting Held in the Center William Rappard on June 5, 2007*, IP/C/M/54, July 26, 2007, Para. 58.

²⁶ WTO TRIPS Council, *Minutes of the Meeting Held in the Centre William Rappard on June 8-9*, IP/C/M/60, September 28, 2009, Para. 37.

²⁷ Ibid, Para. 55.

also actively followed up with discussions or negotiations at WIPO IGC. While there has been no obvious progress in the negotiations of the disclosure obligation at TRIPS Council from 2002 to 2010 because of consistent opposition from the US, WIPO IGC reached an initial agreement to undertake text-based negotiations in March 2010. Since then, WTO Members have put more weight to the text-based negotiations at the WIPO IGC.

Notwithstanding the forum shift, negotiations at the WIPO IGC have not been easier than at the TRIPS Council. Since the same key players are involved, and so the same diversity and divergence of opinions reproduced themselves at the IGC.²⁸ In early 2012, delegations of WIPO member states started to negotiate the draft of a consolidated document at IGC meetings.²⁹ The disclosure obligation has been one of the controversial issues in the negotiations of the consolidated document during rounds of revision.³⁰ In one version, the disclosure obligation was listed as one of the options in parallel with the defensive protection of genetic resources by establishing related databases.³¹ This version basically denied the mandatory disclosure option as proposed by the megadiverse countries and the EU. The latest version in June 2016, though stipulating the disclosure obligation in an independent article, contains footnotes to the effect that defensive protection can be considered as the alternative to the disclosure obligation by some contracting members.³² Such an ambiguous and somewhat self-contradictory arrangement suggests the likely strong influence of the US (and Japan).

US dominance has been at work procedurally. The IGC negotiations broke down in 2014 because of the US' opposition. As a non-permanent committee of WIPO, the mandates of the IGC are

²⁸ See proposals from African Group, Like-Minded Countries, European Communities and its Member States, Switzerland, and Japan (WIPO/GRTKF/IC/20/INF/11). See WIPO IGC, Twentieth Session, *Proposal of the African Group on Genetic Resources and Future Work*, WIPO/GRTKF/IC/20/INF/12, October 17, 2011; WIPO IGC, Twentieth Session, *Like-minded Countries Contribution to the Objectives and Principles on the Protection of genetic Resources and Preliminary Draft Articles on the Protection of Genetic Resources*, WIPO/GRTKF/IC/20/20/6, October 11, 2011; WIPO IGC, Twentieth Session, *Disclosure of Origin or Source of Genetic Resources and Associated Traditional Knowledge in Patent Applications*, Document submitted by the European Community and its Member States, WIPO/GRTKF/IC/20/INF/8, October 17, 2011; WIPO IGC, Twentieth Session, *Declaration of the Source of Genetic Resources and Traditional Knowledge in Patent Applications: Proposals by Switzerland*, WIPO/GRTKF/IC/20/INF/10, October 17, 2011; WIPO IGC, Twentieth Session, *Additional Explanation from Japan Regarding the Document WIPO/GRTKF/IC/9/13 on the Patent System and Genetic Resources*, WIPO/GRTKF/IC/20/INF/11, October 17, 2011.

²⁹ WIPO IGC, Twenty-Third Session, *Consolidated Document Relating to Intellectual Property and Genetic Resources*, document prepared by the Secretariat, WIPO/GRTKF/IC/23/4, November 2, 2012.

³⁰ WIPO IGC, Twenty-Fifth Session, *Consolidated Document Relating to Intellectual Property and Genetic Resources*, document prepared by the Secretariat, WIPO/GRTKF/IC/25/5, May 30, 2013. WIPO IGC, Twenty-Eighth Session, *Consolidated Document Relating to Intellectual Property and Genetic Resources*, document prepared by the Secretariat, WIPO/GRTKF/IC/28/4, June 2, 2014. WIPO IGC, Thirtieth Session, *Consolidated Document Relating to Intellectual Property and Genetic Resources*, document prepared by the Secretariat, WIPO/GRTKF/IC/30/4, March 9, 2016.

³¹ See *ibid*, WIPO/GRTKF/IC/25/5, Article 3.

³² See *supra* note no. 30, WIPO/GRTKF/IC/30/4, Footnote 1.

subject to biennial renewal. The renewal was not successful in 2014 because the US did not agree with its normative work program (Saez 2015). In 2015, the African Group proposed to promote IGC as a standing committee of WIPO (the proposed name was Standing Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Traditional Cultural Expressions, SCTK)³³ to avoid biennial review of its mandates. Then the US submitted a counterproposal to discontinue the mandate of the IGC and replace the IGC Committee with seminars, studies, and an expert working group.³⁴ The breakdown shows how powerful actors like the US are skillful in executing a forum-braking strategy to obstruct negotiations on issues it does not favor. It also shows that WIPO IGC is actually a forum vulnerable to games of delay on negotiating the disclosure obligation.

4.3 China navigating the multilateral negotiations on the disclosure obligation

China's position on the issue of disclosure obligation is based on and constrained by the following facts: As a contracting state of CBD, China has to establish a legal system to guarantee the achievement of the ABS. As a latecomer to WTO, China has to operate in the context of existing negotiations, fitting its domestic position into a pre-existing historical context. As an emerging economy with an ambition to boost its own bio-industry, China has to balance the interests of big biotech companies, its domestic biological companies, and the development of the local and indigenous communities. In particular, the ambition to cultivate a domestic bio-industry may see China's position diverge from that of other megadiverse countries.

In this context, China first identified itself as a megadiverse country and co-sponsored various proposals at the TRIPS Council (Section 4.3.2). China also learned from the debate at the TRIPS Council, in particular, proposals by Norway and Switzerland as well as EU, and established the disclosure obligation in its domestic law *Patent Law* (2008) (Section 4.4). With this clear pro-disclosure position in patent law, China engaged relevant negotiations more actively after 2008 (Section 4.5).

4.3.1 Context for China's engagement in the disclosure obligation

China is a contracting member of various intellectual property treaties, including TRIPS, International Convention for the Protection of New Varieties of Plants (UPOV Convention,

³³ WIPO General Assembly, Forty-seventh (22nd Ordinary) Session, *Conversion of WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) into a Standing Committee: Proposal by the African Group to The 2015 General Assembly*, document prepared by the Secretariat, WO/GA/47/16, July 28, 2015.

³⁴ WIPO General Assembly, Forty-Seventh (22nd Ordinary) Session, *Matters Concerning the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC): Proposal of the United States of America to the WIPO General Assembly*, document prepared by the Secretariat, WO/GA/47/17, September 4, 2015.

1978),³⁵ Patent Cooperation Treaty (PCT) and other WIPO treaties.³⁶ These memberships mean China has to undertake treaty obligations on the protection of intellectual property. On the other hand, China joined the CBD in 1992, and participated in the negotiations of the ITPGRFA, although it has yet to sign the latter. These agreements create obligations that in turn create a need for models, thus opening the door to a transplanted model as a possible solution. For instance, becoming a member of both the CBD and TRIPS pushed China into addressing issues of the TRIPS-CBD relationship and to develop its own position when any conflict occurred in domestic implementation or international negotiation.

In contrast to China's engagement in other IP issues, in which compliance was the first step, there is no compliance pressure in the case of the disclosure obligation. This is because no international agreement has yet been concluded. This allows for plenty of freedom for China to decide which position it should take. As one of the megadiverse countries of the world, strengthening protection of genetic resources on the multilateral level appears to be consistent with China's interest. This basic fact incentivized China to be active in the international negotiations and shapes China's position in supporting the disclosure obligation.

As a latecomer to the WTO, China has missed international rule-making for most IP issues at the TRIPS negotiation. The negotiations on the disclosure obligation remain an ongoing process. As a latecomer, China could identify the different positions and then take a side. It could also select the most suitable model for its domestic conditions by learning about the subtle differences among various models in the continuing debate. Indeed, China was a quick learner. Six months after its accession to the WTO, China took the position of supporting other megadiverse countries by co-sponsoring the proposal IP/C/W/356³⁷ at the TRIPS Council in June 2002.

Different from some megadiverse countries that proposed to amend TRIPS to exclude life forms and parts thereof from patentability,³⁸ China has the ambition to develop its bio-industry. In 2010, China identified seven strategic emerging industries 战略性新兴产业 [Zhanliuexing xinxing chanye] to be the backbone for industrial modernization and technological development in the

³⁵ The relevant Chinese law is *Regulations on the Protection of New Varieties of Plants* (2013).

³⁶ See Appendix I for the multilateral agreements in which China is a contracting member.

³⁷ WTO TRIPS Council, *The Relationship between the TRIPS Agreement and the Convention on Biological Diversity*, Brazil on behalf of the delegations of Brazil, China, Cuba, Dominican Republic, Ecuador, India, Pakistan, Thailand, Venezuela, Zambia and Zimbabwe, IP/C/W/356, June 24, 2002.

³⁸ For instance, Bolivia proposed an amendment of Article 27.3(B), which gained support from many megadiverse countries. See WTO TRIPS Council, *Article 27.3(B) and the Legalization of Biopiracy: Trends, Impacts and Why It Needs to Be Amended*, Communication from the Plurinational State of Bolivia, IP/C/W/554, March 28, 2011.

next stage, and biological breeding is one of the seven³⁹. In 2015, the *Made in China (2025)*⁴⁰ explicitly emphasized the bio-industry as one of the ten high-end industries for China to gain or maintain its competitive advantage.

According to the WIPO IP Statistics Data Centre,⁴¹ patent grants to Chinese applicants for biotechnology have surged since 2010. The number of patent grants to Chinese applicants first overtook those to US applicants in 2013, although the US exceeded China again in 2015 (Figure 11).

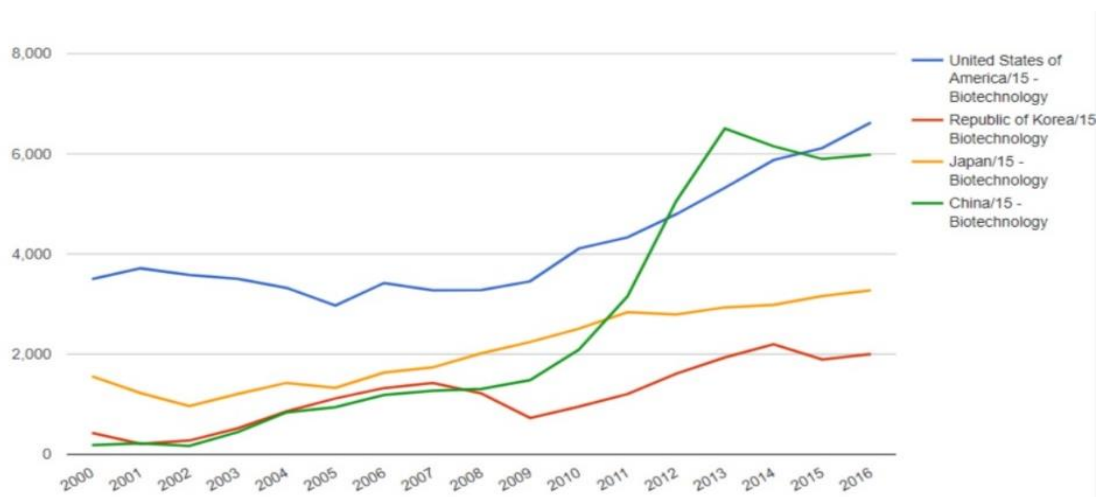


Figure 11 Patent Grants in Biotechnology (Counted by the Origin of Applicants) (2000-2016)

China is not only playing the domestic game of numbers. PCT applications from Chinese residents in the area of biotechnology have also increased gradually. Although there is still a big gap between China and other industrialized countries, the gap narrows each year (Figure 12).

³⁹ State Council, Decision on Accelerating the Development of Strategic Emerging Industries 国务院关于加快培育和发展战略性新兴产业的决定 [Guowuyuan Guanyu Peiyu he Fazhan zhanlǜxing Xinxing Chanye de Jueding], No. 32 (2010) 国发 (2010) 32 号 [Guofa (2010) 32 hao].

⁴⁰ See note no. 56 of Chapter 2.

⁴¹ WIPO, Intellectual property Statistics, available at: <http://www.wipo.int/ipstats/en/>.

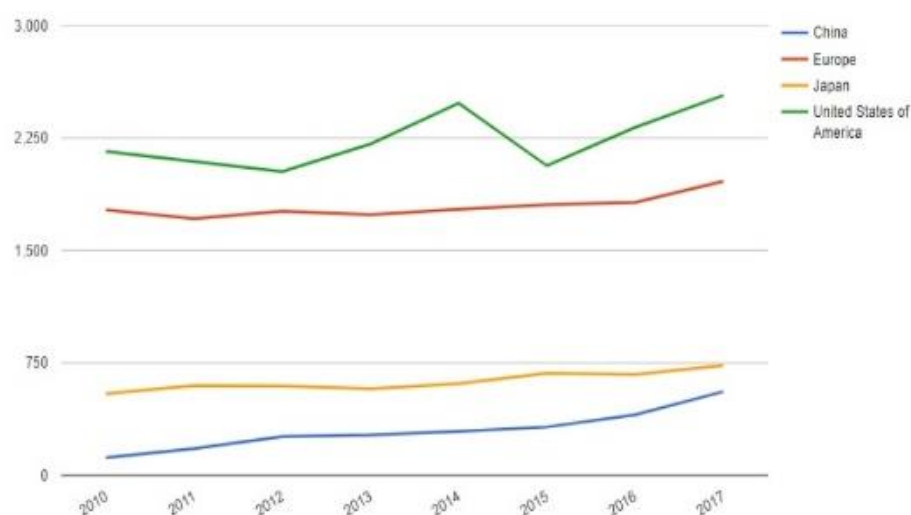


Figure 12 PCT Publication in Biotechnology (Counted by the Origin of Applicants) (2010-2017)

Considering that not all biotechnology patents are related to the use of genetic resources, it is necessary to look further into the internal structure of bio-patent applications in China. According to a report by SIPO on the strategic emerging industries (SIPO 2016a), applications submitted to SIPO and the USPTO in the area of biotechnology presented a similar pattern – with intensive patent applications in the field of bio-drugs, bio-medical equipment, and biochemical products. China had more applications than the US in the manufacturing of bio-agricultural products and applied environmental management technology (Figure 13).

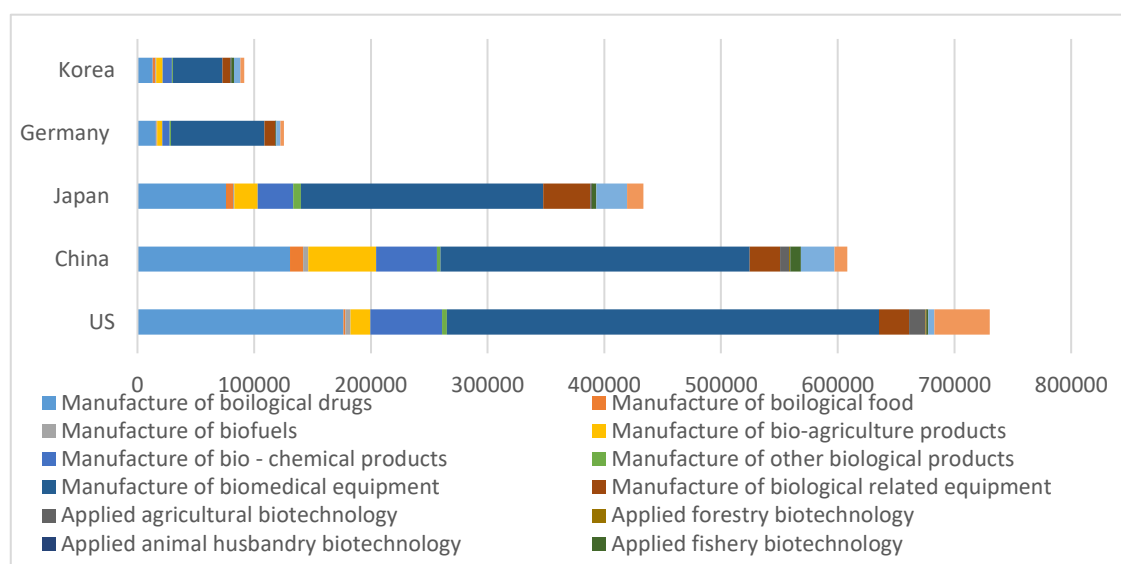


Figure 13 Technology Distribution of Patent Applications in the Bio-industry⁴²

From the above figures, the deployment of patents in biotechnologies means that China may not fully support the megadiverse countries' proposal on the disclosure obligation. China may have to balance the legal consequences of non-disclosure and demand to guarantee certainty for granted

⁴² Data for this figure comes from Table 7, SIPO (2016a, 62-63).

patents. The need to promote its domestic patent system in the strategic sector of biotechnology also keeps China silent at the TRIPS Council when it comes to the proposal to amend Article 27.3 to exclude patentability of life forms.

4.3.2 China's position at the TRIPS Council

China first encountered the issue of the disclosure obligation at the TRIPS Council after its accession to the WTO in 2001. Relevant discussions and debates at the TRIPS Council created opportunities for China to differentiate between various proposals and select an appropriate position to suit its domestic context. Through a process of learning and adaptation, China soon developed a position.

The TRIPS Council Meeting started discussions on the TRIPS-CBD relationship in March 2002,⁴³ three months after China's accession to the WTO. The Chinese representatives to the TRIPS Council were ignorant of what was going on and what was at stake in the TRIPS-CBD relationship. At this meeting, the Chinese representative said: "the question of potential conflicts between the TRIPS Agreement and the CBD might not be of great importance." She acknowledged that biological diversity was a "relatively new concept",⁴⁴ and showed interest in the US proposal of the contract-based solution. This speech was not a surprise because China was overwhelmed at that moment by the need to amend its domestic IP laws to comply with TRIPS standards. China gradually realized the problems of the US proposal — the unequal bargaining power between the parties.⁴⁵

China soon developed its position of supporting the disclosure obligation and positive protection of traditional knowledge.⁴⁶ However, in the early stages, China vacillated between the strong and weak forms of disclosure obligation (Figure 10). On the one hand, China was very cautious in co-sponsoring proposals initiated by other megadiverse countries for the disclosure obligation. Among the various proposals submitted by megadiverse and other developing countries (Table 9), China only co-sponsored two of them (IP/C/W/356 in 2002, and IP/C/W/474 in 2006) before 2008 when its domestic legislation introduced a standard on disclosure obligation. Besides cosponsoring, China sometimes expressed its support for a proposal by other megadiverse countries at the TRIPS Council meetings without being a co-sponsor of that proposal.

China also showed interest in the EU and Norwegian proposals for a weak disclosure obligation. Both proposals considered disclosure as a formal requirement for patent applications, with non-

⁴³ WTO TRIPS Council, *Minutes of the Meeting Held in the Center William Rappard* on March 5-7, 2002, IP/C/M/35, March 22, 2002.

⁴⁴ Ibid, IP/C/M/35, Para. 248.

⁴⁵ Ibid.

⁴⁶ See supra note no. 37.

compliance not causing the invalidity of a patent already granted. Chinese representatives took advantage of the TRIPS Council meetings to learn the details of the mechanism proposed by the EU and Norway.⁴⁷ Such knowledge to a certain extent influenced Chinese domestic rule-making on disclosure obligation (Section 4.4.2).

After China's announcement of its intention to amend its patent law in 2005, dynamics occurred between China's position at the TRIPS Council and its domestic legislative process concerning disclosure obligation. Before announcing the patent law amendment in 2005, China had clearly expressed its support for megadiverse countries' proposals.⁴⁸ After the legislative process for the patent law amendment started in April 2005, Chinese representatives kept silent in the two TRIPS Council meetings (48th and 49th meeting). These two meetings have been the only two TRIPS Council meetings where Chinese representatives did not speak a word on the disclosure obligation. China's silence during the 48th and 49th TRIPS meetings shows how careful it was to maintain the consistency of its international position and domestic legislation. After it becomes clear that the expected patent law would set a rule on the disclosure obligation, China reassumed its engagement with the TRIPS Council by cosponsoring a proposal⁴⁹ to support the disclosure obligation. After the promulgation of *Patent Law* (2008), the Chinese position at the TRIPS Council on the disclosure obligation became firm and clear (Section 4.5.1).

In addition to the TRIPS Council, the EU and Switzerland consistently took the cross-forum strategy to negotiate the disclosure obligation at the WIPO IGC. Before the amendment of the patent law, China did not actively engage at the WIPO IGC either. As occurred at the TRIPS Council, China used the IGC as another forum to learn subtle differences between different proposals concerning the disclosure obligation.

⁴⁷ For instance, Chinese representative to the TRIPS Council posed questions to the EC for the details of the disclosure obligation regarding the legal consequence of violation, whether civil or criminal remedy would be appropriate. See WTO TRIPS Council, *Minutes of the Meeting Held in the Center William Rappard on February 18-19, 2003*, IP/C/M/39, March 21, 2003, Para. 135.

⁴⁸ See WTO TRIPS Council, *Minutes of the Meeting Held in the Center William Rappard on 8-9 and 31 March 2005*, IP/C/M/47, June 3, 2005, Para 57. In this speech, the Chinese representative showed his/her support for the proposals, specifically, WTO TRIPS Council, *the Relationship between the TRIPS Agreement and the Convention of Biological Diversity (CBD) and the Protection of Traditional Knowledge – Elements of the Obligation to Disclose Evidence of Benefit-Sharing under the Relevant National Regime*, Submission from Bolivia, Brazil, Colombia, Cuba, Dominican Republic Ecuador, India, Peru and Thailand, IP/C/W/442, March 18, 2005; and WTO TRIPS Council, *the Relationship between the TRIPS Agreement and the Convention on Biological Diversity (CBD) and the Protection of Traditional Knowledge – Technical Observation on Issues Raised in a Communication by the United States (IP/C/W/434)*, Submission from Brazil and India, IP/C/W/443, March 18, 2005.

⁴⁹ See *supra* note no. 17.

4.4 Fruition of China's multilateral engagement: *Patent Law* (2008)

Although China is rich in genetic resources, it did not develop legal mechanisms for the protection of genetic resources. Instead, China engaged in a process of regulatory importation again, to introduce the rules on disclosure obligation to its *Patent Law* (2008) for the first time. This section will first explore Chinese *Patent Law* (2008) provisions on the disclosure obligation (Section 4.4.1) and then further analyze where the rules come from through a comparative analysis (Section 4.4.2). This is a valuable example to show how China took the strategy of modeling (Chapter 10.2) to achieve its domestic policy objectives in a case where international rules are not yet in place.

4.4.1 The disclosure obligation in *Patent Law* (2008)

Before *Patent Law* (2008), China had already regulated genetic resources in some specific areas. For instance, *Law of Seeds* (2000) introduces the principle of state sovereignty on germplasm resources. Although these laws⁵⁰ sometimes confuse the principle of state sovereignty with state ownership, they confirm the regulatory power of other ministries beyond SIPO on genetic resources. This pre-patent law landscape influenced China, to some extent, to take its own approach to the disclosure obligation. Nonetheless, these laws only focus on specific types of genetic resources without defining them. The *Implementing Rules of the Patent Law* (2010) (IRPL 2010)⁵¹ defines genetic resources as “any material taken from human, animal, plant or microorganism, containing genetically functioning units with actual or potential value” (Article 26.1 IRPL). This definition is very broad though it does not use the term *biological resources* as does India and other megadiverse countries.

The *Patent Law* (2008) introduced two provisions on the protection of genetic resources: one is the disclosure obligation (Article 26.5), and the other is Article 5.2 which I refer to as the linkage arrangement. In addition to these two basic provisions, the IRPL 2010 further stipulated the legal consequences of non-compliance with the disclosure obligation. Article 26.5 and Article 5.2 are compared in Table 10.

⁵⁰ See the *Constitution of China* 宪法[Xianfa], Article 9; the *Law of Forest* 森林法[Senlin Fa], Article 3; the *Law of Grassland* 草原法[Caoyuan Fa], Article 9; *Law on the Protection of Wild Animals* 野生动物保护法[Yesheng Dongwu Baohu fa], Article 3; *Law of the animal Husbandry* 畜牧法[Xumu Fa], Chapter 2; *Law of Sees* 种子法[Zhongzi Fa], Article 11.

⁵¹ State Council, *Implementing Rules of the Patent Law* 专利法实施细则 [Zhuanlifa Shishi Xize], 2010.

Table 10 The Protection of Genetic Resources in *Patent Law* (2008)

	Disclosure obligation Article 26.5 Patent Law (2008)	Linkage arrangement Article 5.2 Patent Law (2008)
Violation	Not to submit a document disclosing origin and direct source of the genetic resources in patent applications	Apply for a patent of which the invention relying on genetic resources have been accessed or used in a way that violates other laws and regulations
Formal examination stage	The applicant should state his/her observations or correct the application within the specified time limit. If the applicant fails to make any response within the specified time limit, the application shall be deemed to have been withdrawn (Article 44.2 IRPL 2010)	The applicant should state his/her observations or correct the application within the specified time limit. If the applicant fails to make any response within the specified time limit, the application shall be deemed to have been withdrawn (Article 44.2 IRPL 2010).
Substantive examination stage	Application rejected (Article 53.2 IRPL 2010)	Application rejected (Article 53.1 IRPL 2010)
Post-grant	Not mentioned	Invalidity announcement upon petition by a third party (Article 65.2 IRPL 2010)

4.4.1.1 Weak disclosure obligation

Article 26.5 specifies that the *Registration Form for Indicating Source of Genetic Resources* should be submitted along with other documents in patent applications: “with regard to an invention accomplished by relying on genetic resources, the applicant shall, in the patent application documents, indicate the origin and direct source of the genetic resources. If the applicant cannot indicate the origin, he/she shall state the reasons.” This provision confirms that Chinese patent law has adopted the model of weak disclosure that considers disclosure as a formal requirement for the patent application. The logic of Article 26.5 Patent Law is that the examiners will only check whether or not the *Registration Form for Indicating Source of Genetic Resources* is included, not the credibility of the information that has been disclosed. Following the logic, legal consequences are only relevant in the pre-grant stage — for those applications where a *Form of Source of Genetic Resources* has been submitted, a patent will be granted; otherwise, if the application relates to genetic resources and no form(s) has been submitted, the application will be rejected. Since the disclosure is only a formal requirement, and an application without disclosure (where it should have been made) will be rejected, the post-grant legal consequences are not mentioned. However, this deduction ignores the situation when someone gives a false statement about the origin, for which a post-grant remedy is necessary. Currently, there is no incentive for a patent applicant to submit a false statement about the source of genetic resources because the

PIC has not yet been established in the Chinese legal system. Nonetheless, misrepresentations might occur after the legal mechanism of ABS is introduced to China.

4.4.1.2 Additional protection for genetic resource: the linkage arrangement

Article 5.2 of *Patent Law* (2008) stipulates that “Patent rights shall not be granted for inventions that are accomplished by relying on genetic resources which are obtained or used in violation of the provisions of laws and administrative regulations.” This provision intends to link the patent law to other laws and administrative regulations. If other laws have specific provisions that have been violated, such a violation will invoke the application of Article 5.2.

Article 5.2 of *Patent Law* (2008) has introduced some controversy in its interpretation. The focus of Article 5.2 and Article 26.5 are different. Article 5 is a provision for maintaining public order and protecting the public interest in patent law. Article 5.1 provides that “patent rights shall not be granted for any inventions that are against the law, social ethics or impairs public interest.” It is more a miscellaneous provision to complement the existing specific provisions. Article 5.2 was part of the patent law to protect the genetic resources, and the scope of “violation” may be broader than non-disclosure and may include not obtaining the PIC from relevant communities. This provision was included in the *Patent Law* (2008) to compensate for the drawbacks of the weak disclosure mechanism in Article 26.5. As the patent office of China, SIPO did not think it would have the capacity to examine the credibility of the information in the *Registration Form for Indicating Source of Genetic Resources*. China, as a country planning to boost its bio-industry, wanted certainty for its patent system; however, it also acknowledges that the weak disclosure alone is not enough for sufficient and effective protection of genetic resources. So SIPO first put Article 5.2 in place with the expectation that other laws and regulations could fill the gap by referring to this provision. In short, Article 5.2 provides the legal consequences within the patent system when certain behavior related to accessing genetic resources on which an invention patent relies has violated other laws and regulations. In cases of such violation, the legal consequence would be a rejection of a patent application before a patent is granted and invalidation when a patent has been granted.

The ideal scenario for a functioning linkage between various laws and Article 5.2 *Patent Law* (2008) would be: (1) both the law and regulation governing a specific type of genetic resource in China and the law of the access and benefit sharing include clear provisions specifying either the *legitimate* ways to access genetic resources or otherwise what constitutes a *violation* in accessing genetic resources; (2) all of the above laws and regulations refer to legal consequences in Article 5.2 *Patent Law* (2008) when a patent application relying on genetic resources accessed these genetic resources in the illegal ways stipulated in (1). However, such ideal type has not operated in practice. The major problem is that while Article 5.2 provides a linkage between the patent law

and other laws and regulations, these other laws and regulations have not yet been formulated. Whether Article 5.2 is enforceable will depend entirely on whether the laws or regulations to which it refers provide specific mechanisms for legitimate access to genetic resources, in particular, the PIC. Though some laws and regulations referred to by Patent Law contain the principle of state sovereignty over genetic resources (Xue and Cai 2009a), a mere declaration of state sovereignty itself could not constitute the basis upon which to decide whether the access is legitimate in a specific case. It is the specific mechanisms including the PIC, not the state sovereignty, that define legitimate access.

China ratified the *Nagoya Protocol* in September 2016. This indicates domestic rule-making of ABS on plant genetic resources will take place for the purpose of compliance with the Protocol. Also, since China also negotiated the ITPGRFA and there are recommendations that China should join the treaty (Zhang 2012), ABS for genetic resources for food and agriculture would also need to be considered. Considering problems of lack of coordination, communication and mutual support among various regulators on genetic resources (Xue 2015), there is a long way to go to establish such linkage to genetic resources. Nonetheless, there is an upside to the linkage. Though the linkage arrangement has been an empty promise because relevant laws and regulations are not in place, the signature of the *Nagoya Protocol* means that China will have the mechanism of ABS (including the PIC) in place quickly. There is a basis for this conjecture: China started its drafting of the *Law of Biodiversity* in 2016 (Xinhuanet 2016). If the law takes an overall approach by requiring ABS for all types of genetic resources, the linkage will be established. By then, the linkage approach could be a remedy for the “softness” of the weak disclosure obligation in Article 26.5. These laws and regulations can directly stipulate that misrepresentation in disclosure constitutes a violation of these laws or regulations, so Article 5.2 instead of Article 26.5 will apply to deter misrepresentation in the disclosure.

4.4.2 The introduction of the disclosure obligation to China: an active learning process

After analyzing the Chinese patent law provisions on the protection of genetic resources, this section further explores where these rules have come from. I take a comparative approach in this section, using three proposals on the disclosure obligation submitted to the WTO TRIPS Council or WIPO IGC⁵² as references. I then compare relevant provisions in *Patent Law* (2008) with

⁵² See WTO General Council, Trade Negotiation Council, and TRIPS Council, *the Relationship between the TRIPS Agreement, the Convention on Biological Diversity and the protection of traditional knowledge — Amending the TRIPS Agreement to Introduce an Obligation to Disclose the Origin of Genetic Resources and Traditional Knowledge in Patent Applications*, Communication from Norway, IP/C/W/473 (Also circulated as WT/GC/W/566 and TN/C/W/42), June 14, 2006; see details for the megadiverse country proposal IP/C/W/474 at supra note no. 17, and EU proposal at WIPO IGC WIPO/GRTKF/IC/8/11 at supra note no. 21.

elements of these proposals. I also refer to the publications on the SIPO website to show how active learning has happened. Due to the lack of interview data to deeply investigate the legislative process, I make my argument on the basis of text analysis.

China undertook active learning to introduce the disclosure obligation into *Patent Law* (2008). China encountered the problem of misappropriation at the TRIPS Council (Section 4.3.2) and WIPO IGC and learned from other WTO Members how the disclosure obligation could be part of the solution. In contrast to the pressure of (TRIPS) compliance with other types of intellectual property, China did not have the external pressure to establish a law for disclosure obligation domestically.

SIPO started its project of the third amendment of the Patent Law in April 2005, and the first draft by SIPO was submitted to the State Council on December 27, 2006. The megadiverse countries proposed a strong disclosure model (IP/C/W/474) and Norway proposed a weak disclosure model (IP/C/W/473)⁵³ in July 2006⁵⁴ to promote text-based negotiations on the disclosure obligation. These two proposals were submitted during the drafting of the *Patent Law* (2008) and China had access to the text of both proposals. In particular, the Chinese representative showed interest in the Norwegian proposal at the TRIPS Council Meeting.⁵⁵ The Norwegian proposal was soon translated into Chinese and published in the specialized column on the protection of genetic resources at the SIPO website.⁵⁶ Translation enabled this proposal to reach more decision-makers who may not have been proficient in English.

The EU proposal (WIPO/GRTKF/IC/8/11) shows the nuances of the weak disclosure obligation.⁵⁷ The EU circulated its proposal on the disclosure obligation at the WIPO IGC meeting in 2005 and took a cross-forum strategy by reiterating its position at the TRIPS Council. Though both the

⁵³ Ibid, IP/C/W/473.

⁵⁴ The deadline was set by the Hong Kong Ministerial Declaration in December 2005. The proposals should be submitted before that date so that the General Council shall review progress and take any appropriate action.

⁵⁵ WTO TRIPS Council, *Minutes of the Meeting Held in the Center William Rappard on 14-15 June 2006*, IP/C/M/51, September 20, 2006, Para. 85: "He welcomed Norway's support of the amendment of the TRIPS Agreement to introduce a mandatory disclosure obligation in patent applications, although he had reservations on the effectiveness of sanctions outside the patent system." WTO TRIPS Council, *Minutes of the Meeting Held in the Center William Rappard on 5 June 2007*, IP/C/M/514, July 26, 2007, Para 51: "While welcoming the constructive attitude of Norway, he took note of the substantial difference between Norway's proposal and the joint proposal, particularly with regard to the nature of the disclosure requirements."

⁵⁶ The site for the protection of generic resources and traditional knowledge at the SIPO website was <http://www.sipo.gov.cn/ztzl/ywzt/yczyhctzsbh/zlk/ggty/> (this website is not valid when last retrieved on May 6, 2018). That section only updated during March 2005 and April 2007, which was the period for preparing *Patent Law* (2008) amendment. The Norway Proposal was the only one of the proposals submitted to the TRIPS Council that has been translated.

⁵⁷ Recent literature also examined the impact of the EU intellectual property projects on Chinese intellectual property rule-making (Wyzycka and Hasmath 2016). The EU-China IPR2 project had provided advice to the *Patent Law* (2008).

Norwegian proposal and the EU proposal are similar in promoting a weak disclosure model, they differ in several aspects. Table 11 provides a detailed comparison of the disclosure obligation in these four documents.

Table 11 Disclosure Obligation in Multilateral Proposals and *Patent Law* (2008)⁵⁸

	Megadiverse Country Proposal (IP/C/W/474),	Norwegian Proposal (IP/C/W/473)	EU Proposal WIPO/GRTKF/I C/8/11	Chinese <i>Patent Law</i> (2008) Article 26.5
Nature of disclosure obligation	Substantive requirement	Formal requirement	Formal requirement	Formal requirement
Non- compliance effect (Pre-grant)	No granting because of failure to meet patentability	Regarded as withdrawn because of not satisfying formal requirement (Para 7)	Reject or consider as withdrawn	An application shall be rejected because of nonfulfillment of the formal requirement in Article 26.5 (Article 53 IRPL 2010)
Non- compliance (Post-grant)	Invalidity or unenforceable	Administrative or criminal punishment outside of the patent system (Para 8)	Outside the field of patent law	-
Information to be disclosed	Source and origin of genetic resources, Evidence of PIC, Evidence of ABS	Origin of genetic resources	Source of genetic resources; and information concerning PIC	Origin and direct source of genetic resources
Disclosure of traditional knowledge	Mandatory	Mandatory	Optional to disclose	Not required
The relationship between the genetic (biological) resources and the invention patent	Invention derived from or developed with biological resources and/or associated traditional knowledge	-	The invention must be directly based on the specific genetic resources	Invention accomplished by relying on genetic resources

⁵⁸ The proposals for the multilateral fora also includes contents specific to the arrangement on the international level, such as the necessity to amend TRIPS. Such information is not included in the table because the focus of the comparison is about the design of the domestic legal mechanism.

One basic conclusion from the comparison in Table 11 is that the *Patent Law* (2008) bears more similarity with the Norwegian and the EU proposal than the megadiverse country proposal because it considers disclosure as a formal requirement for patent application. The scope of information to be disclosed is limited to genetic resources and does not include traditional knowledge. The legal consequences for non-compliance are only limited to the pre-grant stage. However, as a co-sponsor of the megadiverse countries' proposal, China realized the problem of the weak disclosure and incorporated Article 5.2 into the *Patent Law* (2008) to protect genetic resources (Section 4.4.1.2).

This comparison demonstrates that the introduction of the disclosure obligation to Chinese patent law is generally a modeling process through learning. Nonetheless, one can still see the creativity of Chinese regulators, in particular, the linkage established in Article 5.2 *Patent Law* (2008) to relevant laws and regulations (Section 4.4.1.2). Under this arrangement, Article 5.2 picks up violations relating to the use of genetic resources outside of the patent law and imposes a penalty (invalidity) using patent law. This broad protection for genetic resources does not exist in the EU and Norwegian proposals for weak disclosure. In this way, the disclosure obligation in Article 26.5 *Patent Law* (2008) is consistent with the logic of weak disclosure, where disclosure is still not among substantive requirements for patentability — patentability is still only decided on the basis of novelty, inventive step and applicability. However, the additional protection provided by Article 5.2 *Patent Law* (2008) does include invalidity of a patent as a penalty, if certain provisions for the protection of genetic resources are violated.

In addition to the linkage arrangement, there are also minor adjustments to the building blocks of the disclosure obligation. For instance, the disclosure of traditional knowledge is not mentioned at all in *Patent Law* (2008). In this respect, *Patent Law* (2008) is more cautious than both the Norwegian and the EU proposals on the disclosure concerning traditional knowledge. *Patent Law* (2008) only covers genetic resources, excluding either (1) traditional knowledge *per se* (Proposed by the megadiverse countries and Norway), or (2) associated traditional knowledge, or traditional knowledge associated with genetic resources (proposed by the EU).

In summary, the inclusion of a provision on the disclosure obligation in *Patent Law* (2008) is the fruition of China's multilateral engagement since its accession to the WTO. China started implementing what it proposed multilaterally into its domestic law before any consensus had been reached at the multilateral level. This learning process was different from China's efforts to comply with TRIPS. Without external coercion or pressure, China incorporated the disclosure obligation through active learning from various proposals at the multilateral level.

4.5 China's engagement after *Patent Law* (2008)

The disclosure obligation is an issue that demonstrates interactions between China's domestic law-making and international engagement. Before 2008, China learned from international negotiations to build a disclosure mechanism into its patent law. After the disclosure obligation was incorporated into the *Patent Law* (2008), the domestic provision on the disclosure obligation fed back into Chinese multilateral engagement on the issue. The incorporation of disclosure obligation into Chinese domestic law provided a clear position for China at the level of multilateral negotiations. At the bilateral level, the disclosure obligation is also included in the China-Peru FTA and China-Switzerland FTA. This section will analyze feedback at the multilateral level (Section 4.5.1) and the bilateral level (Section 4.5.2).

4.5.1 China engages in multilateral negotiations

After *Patent Law* (2008), China has been committed to promoting substantive negotiations on the disclosure obligation at the TRIPS Council. China also supported initiatives at the TRIPS Council to guarantee the implementation of the *Nagoya Protocol*. China even started making coalitions with other megadiverse countries at the TRIPS Council from 2013 to 2015. This subsection will investigate China's multilateral engagement after *Patent Law* (2008). Some of the issues discussed in this chapter indicate that China's position at TRIPS Council on the disclosure obligation consolidated as soon as the disclosure obligation was included in the draft of *Patent Law* (2008), prior to the promulgation of the *Patent Law* (2008).

4.5.1.1 China promoting substantive negotiations at the TRIPS Council

Just before the promulgation of the *Patent Law* (2008), China co-sponsored the TN/C/W/52 proposal at the WTO. The TN/C/W/52 proposal was different from previous proposals China previously cosponsored.⁵⁹ The previous two proposals clearly demonstrated the interest of megadiverse countries by promoting the strong disclosure model. TN/C/W/52, however, was a balanced proposal, accommodating interests of 108 WTO Members.⁶⁰ Cosponsored by the EU, Iceland, Switzerland, megadiverse countries, African Groups and other developing countries, this proposal affected a compromise between the weak and strong disclosure models and consolidated the issue of the TRIPS-CBD relationship, the GI Register, and the GI Extension (See Chapter 3.2.2). The main purpose of the proposal was to seek common ground and promote text-based negotiations in the WTO forum. Therefore, controversial issues, such as the nature of the disclosure obligation (a formal or substantive requirement for patent application) and legal

⁵⁹ IP/C/W/356, see *supra* note no. 20; IP/C/W/474, see *supra* note no. 17.

⁶⁰ WTO TRIPS Council, *Minutes of the Meeting Held in the Center William Rappard on 27-28 October and 6 November 2009*, IP/C/M/61, 12 February 2010, Para. 80.

consequences for non-compliance after a patent is granted, were intentionally left untouched.⁶¹ Two-thirds of WTO Members, including China, supported the proposal because of its generality and ambiguity.

After co-sponsoring the TN/C/W/52 and the promulgating *Patent Law* (2008), China's position at the TRIPS Council meetings became more affirmative. Before the proposal, the Chinese representative at the TRIPS Council "encouraged all Members to engage in text-based discussions in informal consultations and to hold focused technical discussions on the amendment proposal at the Council's regular meetings."⁶² After the proposal, the Chinese representative started to "urge that text-based negotiations on the relationship between the TRIPS Agreement and the CBD be undertaken in Special Sessions of the TRIPS Council immediately".⁶³ The underlined words or phrases indicate that China took a stronger position on supporting negotiations on the disclosure obligations at the TRIPS Council.

After years of negotiations, the Chinese representative at the TRIPS Council started to present a clear position on specific issues to support megadiverse countries. For instance, China insisted that the WTO TRIPS Council should be the major forum for negotiations concerning disclosure obligation when the US and other developed Members suggested shifting the forum of negotiations to WIPO IGC.⁶⁴ China also rejected the proposal of defensive protection for genetic resources, a proposal based on the idea of establishing databases as an alternative to the disclosure obligation, on the basis that information contained in databases is limited and may not be accessible by patent examiners.⁶⁵ One can see that the sophistication of Chinese representatives has developed when we compare these positions with their remarks soon after China joined the WTO (See Paragraph 1, Section 4.3.2).

4.5.1.2 China supporting the implementation of the Nagoya Protocol at WTO

The Nagoya Protocol was the first multilateral agreement on ABS. After incorporating the disclosure obligation in *Patent Law* (2008), China, as a member of the LMMC in the negotiations of Nagoya Protocol, supported incorporating the disclosure obligation into the Nagoya Protocol. Though the Nagoya Protocol failed to incorporate the disclosure obligation into its final text

⁶¹ See TN/C/W/52 in supra note no. 22.

⁶² WTO TRIPS Council, *Minutes of the Meeting Held in the Center William Rappard on 23-24 October 2007*, IP/C/M/55, December 21, 2007, Para. 112. Underlines are added by the author.

⁶³ WTO TRIPS Council, *Minutes of the Meeting Held in the Center William Rappard on 13 March 2008*, IP/C/M/56, May 21, 2008, Para. 37. Underlines are added by the author.

⁶⁴ WTO TRIPS Council, *Minutes of the Meeting Held in the Center William Rappard on 2 March 2010*, IP/C/M/62, June 1, 2010, Para. E.27; WTO TRIPS Council, *Minutes of the Meeting Held in the Center William Rappard on 8-9 June 2010*, IP/C/M/63, October 4, 2010, Para. 64.

⁶⁵ See supra note no. 38.

(UNCTAD 2014), its achievement on ABS stimulated the megadiverse countries to further promote negotiations at the WTO to comply with the ABS requirement in the Nagoya Protocol.

In 2011, Brazil, China, Colombia, Ecuador, India, Indonesia, Peru, Thailand, the ACP Group, and the African Group cosponsored a new proposal⁶⁶ in the Trade Negotiations Committee of the WTO. It was not tabled at the TRIPS Council because there had been little progress there. TN/C/W/59 proposed an updated Article 29bis TRIPS on the disclosure obligation which incorporated an *Internationally Recognized Certificate of Compliance* (IRCC) as part of the information to be disclosed. The IRCC is required by the *Nagoya Protocol* as part of ABS. So, the TN/C/W/59 proposal aimed to incorporate the IRCC as a TRIPS standard to guarantee achievement of the CBD objective.

Comparison of the TN/C/W/59 with the previous megadiverse proposal IP/C/W/474 on Article 29bis TRIPS shows that the TN/C/W/59 proposed weaker legal consequences for non-compliance of the disclosure obligation at the post-grant stage. In TN/C/W/59, the post-grant sanctions for non-compliance may include (1) administrative sanctions, criminal sanctions, fines and adequate compensation for damages, or (2) other measures and sanctions, including revocation. In IP/C/W/474, the revocation or rendering unenforceable of a patent is essential to penalties for post-grant non-compliance. The text of the proposal TN/C/W/59 on Article 29bis TRIPS in TN/C/W/59 bares similarities to Chinese *Patent Law* (2008). Nonetheless, there is little data to verify China's influence in the proposal.

4.5.1.3 China as part of the coalition to push negotiations forward

After ten years of negotiations, the TRIPS-CBD relationship was still not listed for an early harvest in preparation for the 9th Ministerial Conference of WTO in 2013. Since 2013, China has made coalitions with Indonesia, Brazil, India, Peru, South Africa, Cuba, Ecuador, and other megadiverse countries, proposing text-based negotiations on the disclosure obligation at TRIPS Council meetings. The opening remark by a Chinese representative at the TRIPS Council Meeting that “China would like to associate itself with the delegations of Indonesia and Brazil”⁶⁷ was unprecedented. It is the first time that China has announced a coalition (in expressive language) at a TRIPS Council Meeting on this issue.

⁶⁶ WTO Trade Negotiations Committee, *Draft Decision to Enhance Mutual Supportiveness between the TRIPS Agreement and the Convention on Biological Diversity*, Communication from Brazil, China, Colombia, Ecuador, India, Indonesia, Peru, Thailand, the ACP Group, and the African Group, TN/C/W/59, April 19, 2011.

⁶⁷ WTO TRIPS Council, *Minutes of the Meeting Held in the Center William Rappard on 5-6 March 2013*, IP/C/M/72, Para. 5.5.

This coalition lasted for two years. From 2013 to 2015,⁶⁸ China was one of the main supporters for the disclosure obligation and the exchange of information between CBD and TRIPS. The coalition was resisted by the US, South Korea, Japan and Canada. Given no prominent progress has been achieved by this coalition, the megadiverse countries focused more on the negotiations at the WIPO IGC (Section 4.2.2).

4.5.2 China incorporates the disclosure obligation into its FTAs

In addition to multilateral engagement, the disclosure obligation is also mentioned in Chinese bilateral FTAs. Generally, China actively promoted the protection of genetic resources in its FTA negotiations. Chapter 6.3.1 will analyze Chinese FTA provisions on the protection of genetic resources. This section will focus specifically on the FTA provisions of the disclosure obligation. China-Peru FTA and China-Switzerland FTA include stipulations on the disclosure obligation. As both FTAs were signed after the *Patent Law* (2008), they will allow us to assess the impact of China's domestic law on its FTAs.

4.5.2.1 China-Peru FTA

In the WTO Hong Kong Ministerial in 2005, India, Brazil, and Peru proposed to include the disclosure obligation in the final ministerial text addressing the need for further consultation on implementation issues concerning the TRIPS-CBD relationship. They proposed to negotiate the disclosure obligation at the WTO. Notwithstanding such position multilaterally, Peru accepted a side letter in its FTA with the US bilaterally in 2005. In this side letter, although both parties agreed to the protection of genetic resources, Peru agreed to the US position of only using contracts to access genetic resources and traditional knowledge and not requiring the disclosure obligation in patent applications (Gerhardsen and New 2005). The contract-based approach means the FTA supports non-binding voluntary disclosure (Figure 10), which is different from Peru's original position at the WTO. Moreover, this position also diverged from the position of megadiverse countries, a coalition in which Peru was a leader.

The China-Peru FTA was signed against this background. As the first Chinese FTA that mentions the disclosure obligation, the China-Peru FTA stipulates that both parties agree on further discussion of "disclosure obligation of the origin or source of genetic resource and/or the prior informed consent". Although no substantive negotiations are required by this article, the

⁶⁸ WTO TRIPS Council, *Minutes of the Meeting Held in the Center William Rappard on 11-12 June 2013*, Adeendum, IP/C/M/73/add.1, Para. 8; WTO TRIPS Council, *Minutes of the Meeting Held in the Center William Rappard on 10-11 October 2013*, Adeendum, IP/C/M/74/Add.1, Para. 15.

mentioning of “disclosure obligation” is consistent with Peru’s position at the WTO.⁶⁹ This provision indicates that Peru attempted to subtly manipulate its positions at different fora — supporting the disclosure obligation at the TRIPS Council and China-Peru FTA while accepting the contract-based approach in the US-Peru FTA. Considering this provision only appeared in China-Peru FTA, not in other Chinese FTAs, it was probably proposed by Peru. In this case, China supported the position of its FTA partner to promote the disclosure obligation, something that conforms to their common interest.

4.5.2.2 China-Switzerland FTA

China-Switzerland FTA is the other Chinese FTA mentioning the disclosure obligation. In contrast to the China-Peru FTA in which both parties actively promoted the disclosure obligation, the focus of the China-Switzerland FTA on the disclosure obligation is the legal consequences of non-compliance. Switzerland has supported the model of weak disclosure obligation and has demonstrated this position at both the TRIPS Council and the WIPO IGC.

Switzerland agreed with the megadiverse countries that international IP rules should be supportive of CBD goals, but denied conflict between TRIPS and CBD. Following this basic position, Switzerland proposed to amend the PCT or the SPLT to incorporate the disclosure obligation instead of amending TRIPS.⁷⁰ Switzerland also cosponsored the TN/C/W/52 proposal to the WTO

⁶⁹ WTO TRIPS Council, *Article 27.3(B), Relationship between the TRIPS Agreement and the CBD and Protection of Traditional Knowledge and Folklore*, Communication from Peru, IP/C/W/441, March 8, 2005; WTO TRIPS Council, *Article 27.3(B), Relationship between the TRIPS Agreement and the CBD and Protection of Traditional Knowledge and Folklore*, Communication from Peru, IP/C/W/447, June 8, 2005; WTO TRIPS Council, *Analysis of Potential Cases of Biopiracy*, Communication from Peru, IP/C/W/458, November 7, 2005.

⁷⁰ WTO TRIPS Council, *Review of Article 27.3 (b): the View of Switzerland*, Communication from Switzerland, IP/C/W/284, June 15, 2004; WTO TRIPS Council, *Article 27.3(B), the Relationship between the TRIPS Agreement and the Convention on Biological Diversity, and the Protection of Traditional Knowledge*, Communication from Switzerland, IP/C/W/400/Rev.1, June 18, 2003; WTO TRIPS Council, *Additional Comments by Switzerland on its Proposal Submitted to WIPO Regarding the Declaration of Source of Genetic Resources and Traditional Knowledge in Patent Applications*, Communication from Switzerland, IP/C/W/423, June 26, 2003; WTO TRIPS Council, *Further Observations by Switzerland on Its Proposals Regarding the Declaration of the Source of Genetic Resources and Traditional Knowledge in Patent Applications*, Communication from Switzerland, IP/C/W/433, November 25, 2004; WTO TRIPS Council, *The Relationship between the TRIPS Agreement and the Convention on Biological Diversity (CBD) and the Protection of Traditional Knowledge and Folklore and the Review of Implementation of the TRIPS Agreement under Article 71.1*, Communication from Switzerland, IP/C/W/446, May 30, 2005; WIPO International Patent Cooperation Union (PCT Union) Working Group on Reform of the Patent Cooperation Treaty (PCT), Fourth Session, *Proposals by Switzerland Regarding the Declaration of the Source of Genetic Resources and Traditional Knowledge in Patent Applications*, PCT/R/WG/4/13, May 5, 2003; WIPO International Patent Cooperation Union (PCT Union) Working Group on Reform of the Patent Cooperation Treaty (PCT), Fifth Session, *Proposals by Switzerland Regarding the Declaration of the Source of Genetic Resources and Traditional Knowledge in Patent Applications*, PCT/R/WG/5/11, November 19, 2003; WIPO International Patent Cooperation Union Working Group on Reform of the Patent Cooperation Treaty (PCT), Sixth Session, *Additional Comments by Switzerland on Its Proposals Regarding the Declaration of the Source of Genetic Resources and Traditional Knowledge in Patent Applications*, PCT/R/WG/6/11,

Trade Negotiation Committee to promote text-based negotiations on this issue. Although *Patent Law* (2008) of China generally adopted the formal disclosure approach, provisions on legal consequences of non-compliance were fragmented in the IRPL 2010. The China-Switzerland FTA, therefore, was intended to confirm the legal consequence already existing in the Chinese *Patent Law* (2008).

Article 11.9.5 China-Switzerland FTA provides “Parties may set a time limit by which the applicant must correct the defect.”⁷¹ The Parties may refuse the application or consider it withdrawn if the defect according to this paragraph has not been corrected within the set time limit.” This provision is consistent with Article 44.2 IRPL 2010 (Table 10) and the Chinese *Patent Examination Guideline*.⁷² Since this article merely reiterates the position in the *Patent Law* (2008), it seems this provision does not pose an extra obligation on either party of the FTA. However, it is possible for this provision to have a lock-in effect so that it is more difficult for China to revise the current domestic law as compared with no such provision in the FTA. Nevertheless, the China-Switzerland FTA uses “may” in this provision, so the lock-in effect is debatable.

Both China-Peru FTA and China-Switzerland FTA have mentioned the disclosure obligation, but their impacts on implementation are different. The China-Peru FTA is more ambiguous in its text, tends to reinforce the bilateral cooperation on the negotiation and implementation of the disclosure obligation. The China-Switzerland FTA, though seemingly consistent with the current Chinese patent legislation, has the potential to eliminate the freedom for China to amend its domestic regulations on the legal effect of non-compliance.

4.6 Conclusion

No multilateral agreements, including TRIPS, have yet reached consensus about the disclosure obligation, which is different from the case of GIs. Without consensus at the multilateral level, China enjoys the flexibility to select models for its domestic rule-making and take sides in the ongoing negotiations at various fora. Similar to the GIs, international standards for the disclosure obligation was also a rival standard in the international IP regulation because the US prefers no standard at all.

April 21, 2004; WIPO International Patent Cooperation Union Working Group on Reform of the Patent Cooperation Treaty (PCT), *Further observations by Switzerland on Its Proposals Regarding the Declaration of the Source of Genetic Resources and Traditional Knowledge in Patent Applications Seventh Session*, PCT/R/WG/7/9, April 5, 2005.

⁷¹ According to context, the defect refers to not satisfying the disclosure requirement.

⁷² Article 5.3 *Patent Examination Guideline* 专利审查指南 [Zhuanli Shencha Zhinan] stipulates that patent applicants can still submit the disclosure form during substantive examination. If the disclosure obligation is still not fulfilled at this stage, the patent application will be refused.

This chapter investigated how China incorporated the disclosure obligation into its domestic laws and engaged in international negotiations at the TRIPS Council, the WIPO IGC, and its FTAs. Generally, China took a pro-developing country position to support the disclosure obligation in multilateral negotiations. Along with other megadiverse countries, China promoted text-based negotiations on this issue and supported the proposal to amend Article 29*bis* TRIPS to implement the Nagoya Protocol and realize the ABS objectives of the CBD. The legislative process of *Patent Law* (2008) revealed that China prefers to maintain certainty of the granted patent and promote its own bio-industry, thus following the model of the weak disclosure obligation.

This case also indicates the dynamics between China's multilateral negotiations and its domestic rule-making over time. The inclusion of the provisions on the disclosure obligation in *Patent Law* (2008) was inspired by China's engagement in discussions at the TRIPS Council. After *Patent Law* (2008), China's position at the TRIPS Council was consolidated. China had a clearer position and even made a coalition with other megadiverse countries to promote text-based negotiations.

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Chapter 5 China Emerges in International Standardization

5.1 Introduction

This chapter will focus on China's international engagement in standardization, in particular how China began to engage in the process of international (and domestic) standardization and how these attempts were blocked by the US. Standardization and standards are twin concepts. A standard is a set of technical specifications that adhere to a particular technology, and standardization is the process of developing, ratifying and implementing a standard (Gerst, Bunduchi, and Williams 2005).¹

Standardization is a critical strategy for industries to maintain their competitive advantage. States which are interested in seeing their firms maintain a dominant position in standards/standardization have less incentive to restrict the standard-setting capacity of their firms. They prefer this issue to be regulated by their respective national laws and unregulated at the international level or loosely regulated by international standard-setting organizations in the form of soft law. In addition, the anti-competition effects of standards are different before and after a standard is set. As pointed out by Farrell et al. (2007, 607):

Ex ante, before an industry standard is chosen, there are various attractive technologies, but ex post, after industry participants choose a standard and take steps to implement it, alternative technologies become less attractive. Thus, a patent covering a standard may confer market power ex post that was much weaker ex ante. In the extreme, a standard could be built around initially arbitrary choices that become essential once the standard is established.

Typical *ex post* anti-competitive behavior includes patent hold-up and royalty stacking (Lemley and Shapiro 2006, Farrell et al. 2007).² There is little chance for a latecomer to take an initiative when a standard for a certain technology is set. Chinese companies in most cases are latecomers to a technology and have to accept and follow the standards *ex post*. That means skyrocketing royalties and little chance to surpass the existing standard due to the high cost of switching to another incompatible standard (Farrell and Klemperer 2007, Shin and Kim 2008). As a result, the

¹ Standardization and standard-setting are used interchangeably in academic publications. However, standard-setting is also used to describe the process of setting protection standards for intellectual property in general Drahos (2002a). This thesis uses standardization to avoid possible ambiguity in the term "standard-setting".

² According to Lemley and Shapiro, in the case of patent hold-up, a standard owner (as licensor) may refuse to license or charge a licensee excessively high royalty rates for standard essential patents (SEPs). Users may be locked into the standardized technology, leaving them little choice but to pay. In the case of formal standardization, royalty stacking may exist where multiple licensors each charge more than marginal cost for their patents, thereby raising the overall burden on the licensee.

only chance for a newcomer to win the standardization game is to participate in the *ex ante* competition, beating other competitors to set the standards. Therefore, in comparison to the previous cases where China engages in the international regulation of GIs or the disclosure obligation, this case focuses on China's engagement in standardization *per se*, not the international regulation of standardization.³

Technically standardization and intellectual property (mainly patents) intersect in the form of standard essential patents (SEPs). However, this chapter will not emphasize the intersection but focus on two specific cases of how standardization influenced China (through the case of DVD) and how China participated in standardization (through the case of WLAN Authentication and Privacy Infrastructure (WAPI)). Given the strategic significance of standards to various industries including the Information and Telecommunication industry, the Chinese government has a clear interest in promoting its self-developed standards as compulsory national standards and international standards. However, it is a highly contentious area where Chinese strategies inevitably encounter resistance. The Chinese DVD industry tried to persevere but ultimately failed. Section 5.2 shows how the Chinese DVD industry has been destroyed by royalty stacking by multinational corporations (MNCs). Section 5.3 shows how China's plans to establish a national standard and participate in international standardization for Wireless Local Area Network (WLAN) were defeated, defeated because there is more to the game than just having a patent portfolio. The failed attempts indicate that a country needs a complementary set of institutional, organizational, and negotiating skills if it is to make a standard come alive globally. It's not enough just to have a patent portfolio. In this sense, this is a case that explains what it means for China to be an IP power in the world.

5.1.1 Standardization as an instrument to survive in competition

Economically, compatibility is the main justification for standards. On the supply side of a product, the diverse parts or components manufactured by multiple firms need to be compatible with each other to produce a product. The process of Standardization makes things similar enough to be compatible or interoperable with each other (Farrell 1989).

Standardization means more for a firm than just compatibility. For users, standards produce a network externality⁴—the more users in the same network, the cheaper it is for a single user to consume a related good. For firms, the network externality can bring increasing returns for firms

³ China's efforts to engage in the international rule-making related IP and standardizing at the WTO TBT Committee will be discussed in Chapter 7.3.

⁴ The term network externality was first defined by Katz and Shapiro: "there are many products for which the utility that a user derives from consumption of the good increases with the number of other agents consuming the good. The utility that a given user derives from a good depends upon the number of other users who are in the same network" (Katz and Shapiro 1985). See also Liebowitz and Margolis (1994).

in the network, a mechanism whereby the more products that are sold, the more profitable for the firms involved (Arthur 1996; Lee and Oh 2006). The increasing returns further stimulate firms to strategically use standards — once a standard is established in a network, it is likely to continue because the cost of switching to another incompatible standard will be very high. Firms, therefore, use standards to exclude competitors' entry as well as lock in users.

Looking beyond firms, the controversial role of standards in both facilitating compatibility and excluding competition has long been used by governments to secure their competitive advantage in a market where a network externality effect is at work. With the development of the international supply chain, the importance of international standardization has also increased. More and more actors are involved in the game of standardization where the “winner-takes-all” is the key principle (Shin, Kim, and Hwang 2015). This principle explains the fierce competition in elevating potential candidates to a standard. Firms use standards to secure the first mover advantage; states use standards as non-tariff barriers to trade. As pointed out by Büthe, “standardization is often as intensely political as it is technical” (Büthe 2010, 294). This principle also explains why, as will be discussed later in this chapter, it is so difficult for China to initiate international standardization as a latecomer in the ICT industry.

5.1.2 The North-South contestation in international standardization

In history, states acted unilaterally as standard-setters for their telegraph systems (Braithwaite and Drahos 2000, 332). With the development of international trade, regional and international SSOs were created later to solve the incompatibility problems among different jurisdictions. Since Standardization has become an intense international competition, states have reassumed their important role in the process of international standardization (Lee and Oh 2006). The North-South tension in standardization is increasingly prominent considering that (1) the existing consortia of the ICT industry emerged from alliances of companies from developed countries and (2) companies from emerging countries are increasingly involved in the process of standardization thanks to their recent technology development. The case of WAPI illustrates the battle over standardization from the north-south perspective.

As international standard setting organizations (SSOs) gradually gained the normative power of standardization during their evolution (Büthe 2010), states cannot directly manipulate the process of international standardization in the ICT industry as they once did. Nonetheless, a state can still have regulatory power over standardization within its jurisdiction. States can directly set *de jure*

standards through the proper procedural channels of national SSOs, and MNCs can set the *de facto* standards as the first mover by taking advantage of the network externality of standards.⁵

In the post-WTO era, states' power over standardization has been further limited by the *Agreement on Technical Barrier to Trade* (TBT), a WTO agreement aiming at ensuring technical regulations and standards do not create unnecessary obstacles to international trade. Under this agreement, WTO Members have to notify their adoption of certain national standards and guarantee these standards do not constitute a barrier to trade. With major international SSOs as its observers, the TBT Committee also draws up basic principles to provide guidance for the procedure of international standardization. These principles include transparency, openness, impartiality and consensus, effectiveness and relevance, coherence, and consideration of the development dimension.⁶

5.1.3 Standardization as a lifeline for Chinese ICT companies

Standards are crucial to the development of Chinese information communication technologies (ICT). On the supply side, Chinese manufacturers have long operated on a model of Original Equipment Manufacturer (OEM). This labor-intensive development model makes them the least profitable in global supply chains (Section 5.2.3). In recent years, some Chinese companies have begun to focus on innovation, increasing their research and development (R&D) expenditure and patenting. The number of patents applied for by Chinese ICT companies has reached phenomenal levels – ZTE and Huawei were the top two applicants for Patent Cooperation Treaty (PCT) patent applicants in 2016 (WIPO 2017, Figure 14). Their accumulated patents have helped them catch up with the existing giants in the industry. Nonetheless, MNCs often block the catching-up firms through standards and IP litigation. In particular, standards have become the glass ceiling for these Chinese ICT companies.

⁵ The *de facto* standardization is market based, while the *de jure* standardization is committee-based. For more detailed discussion, see Farrell and Saloner (1988).

⁶ WTO Committee on Technical Barriers to Trade (TBT Committee), *Second Triennial Review of the Operation and Implementation of the Agreement on Technical Barriers to Trade*, G/TBT/9, 13 November 2000, para. 20 and Annex 4.

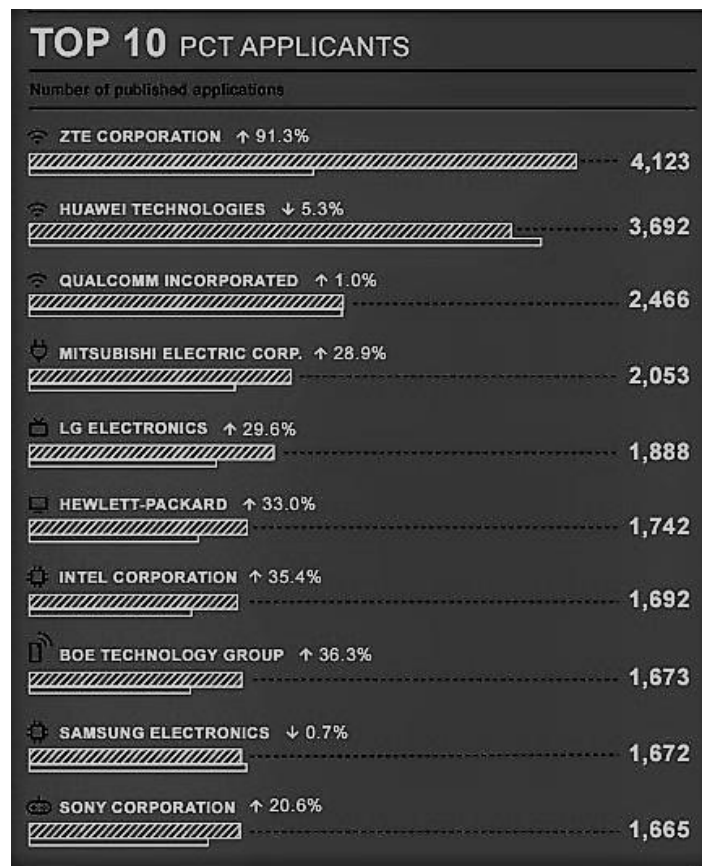


Figure 14 Top 10 PCT Patent Applicants in 2016 (as Compared with 2015)⁷

On the demand side, China has grown into the world's largest mobile phone market, benefiting from the large number of the Chinese population. This market size provides China with a certain leverage regarding standards regulation: domestic regulations within its jurisdiction may have a significant impact on MNCs doing business in China or selling products to China.

Section 5.2 will analyze how China learned from the DVD case where multiple licensors relied on their standards and each charged licensees more than marginal cost for their patents, which led to the destruction of the Chinese DVD industry. It was a painful lesson from which China learned about standards. As result, Chinese companies became determined to develop its own standards. Section 5.3 will examine one of these standardization processes through the case of WAPI. Section 5.4 will discuss the implications of the WAPI case. Section 5.5 concludes.

5.2 The DVD case and its lessons

5.2.1 The rise and fall of the DVD industry in China

The DVD industry in China experienced a rise and a fall within a decade (1997-2007). The industry rose because the global supply chain extended to China. It perished because Chinese

⁷ Data source: WIPO (2017c).

companies could not afford patent fees which MNCs charged based on their SEPs. Because of this case, the Chinese government, Chinese companies and Chinese academics started to pay attention to standards. From this case, China further developed strategic thinking about its position in global value chains (GVCs) and the importance of technology dependence.

Baldwin (2013) identified two reasons for the rise of the GVCs in the mid-1980s: “the ICT revolution made it possible to coordinate complexity at distance; the vast wage differences between developed and developing nations made separation profitable.” China became the world workshop for many industries because of its comparatively low wages.⁸ The comparatively lower labor cost of manufacturing in China was directly responsible for the prosperity of the global DVD industry. The world DVD market was only one billion dollars in 1998 when Japanese and European firms dominated the market. After the entry of Chinese firms, the market grew dramatically to USD 19 billion in 2004 (Shintaku, Ogawa, and Yoshimoto 2006, 18).

Though China quickly developed into the global production base for DVDs, its labor-intensive production mode quickly caused IP and standard problems because most of the intellectual property embodied in DVDs was owned by Japanese and EU companies. Since 2000, patent holders, which have established *de facto* standards in the DVD industry, started requesting patent royalties from Chinese firms. From 2002 to 2008, the number of the licensors increased from one to 37, with the royalty rate increasing from USD 4/unit to USD 21.3/unit (Lu and Gao 2010, 79). Table 12 shows the internal structure of the royalties. In addition to the royalties, Chinese companies also imported core components of DVD players such as optical heads, encoder chips, and servo controllers at a cost of USD 27/unit (2003 price).

⁸ Although there has been a dramatic increase in wages in China since 1978, Yang, Chen, and Monarch (2010) argue China retains its comparative advantage in wages due to the uneven growth across ownership types, industries and regions.

Table 12 Licensing Fees Paid by Chinese DVD Manufacturers to MNCs⁹

Patent holders/ alliances	Member companies	Royalty rate (USD/unit)
DVD6C	Hitachi Consumer Electronics, JVC KENWOOD, Mitsubishi Electric Corporation, Panasonic Corporation, Samsung Electronics, Sanyo Electric Co, Sharp Corporation, Toshiba Corporation, and Warner Brothers	4
DVD 4C Union	Sony Corporation, Philips Electronics, Pioneer Corporation, and LG Electronics.	5 (3.5 since July 2002)
MPEG-2	The Moving Picture Experts Group (MPEG), is a joint committee of the International Organization of Standardization (ISO) and the International Electrotechnical Commission (IEC). The MPGE- LA consists of some 24 different companies	4 (2.5 since July 2006)
Thomson	-	2
Dolby	-	4.95
TDS	-	2-3

The price of DVD players dropped dramatically from the year 2000: “prices for the first (DVD) players in 1997 were \$1000 and up. By the end of 2000, players were available for under USD100 at discount retailers. In 2003, players became available for under USD 50” (Taylor 2013). Most licensing agreements mentioned above provided fixed licensing rates that did not change with the retail prices. While in 2002, there were over 100 DVD manufacturers in China, the number dropped to 14 in 2007. The Chinese DVD industry quickly perished due to unreasonably high licensing fees that did not reflect the drop in retail prices of DVD players.

5.2.2 Two lessons from the DVD case

Chinese DVD manufacturers in a sense paid a tuition fee for a lesson about the importance of standards and their control through patents. Knowledge gained from the lesson has gone beyond

⁹ In addition to Lu and Gao (2010), other sources indicated different rates of licensing fees in the DVD industry, for instance Mei (2012, 122). But various sources indicate the overall licensing fees were around USD 20 for one DVD.

the DVD industry. The Chinese government and other stakeholders began to find solutions. For instance, the China Electronic Standardization Institute (CESI) claimed China had fallen victim to a new form of non-tariff barrier, an “IP-centric technology barrier” (CESI 2003). During the waves of discussions that followed, China began to recognize the position of Chinese companies in GVCs (Gereffi, Humphrey, and Sturgeon 2005) and to think strategically about the importance of technology independence.

Studying 560 GVCs from 1995 to 2008, Timmer et al. (2014) find that the GVCs provide a similar pattern in the distribution of value-added parts when sliced up. Other scholars called the U-shape value-distribution curve “the smiling curve” (Shin, Kraemer, and Dedrick 2012, Sunny Li, Hao, and Erin 2010, Wang and Jia 2010, Chen 2004) (Figure 15).

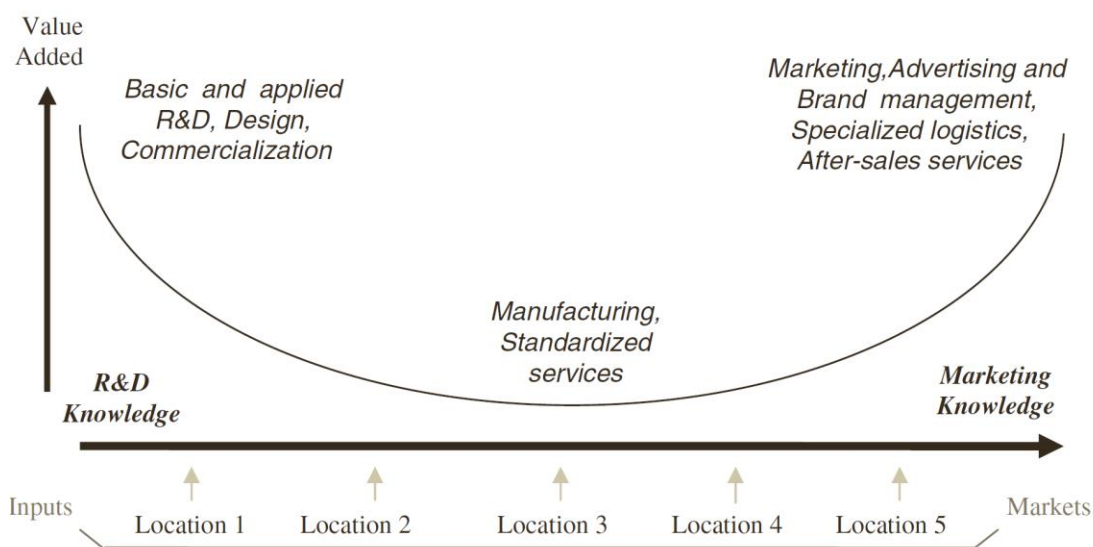


Figure 15 The Smile of Value-creation¹⁰

The smiling curve reveals that the greatest value is captured by upstream (R&D) and downstream (marketing) firms, and the lowest value is captured by the assembly firms located in the middle of GVCs (Shin, Kraemer, and Dedrick 2012).¹¹ The value distribution in GVCs generally presents a smiling curve because MNCs have control over the two ends of the curve. They possess product planning capabilities and market access advantages, so they can decide the distribution of value derived from the GVCs (Chen 2004, 341). The smile is getting deeper as Timmer et al. (2014) finds that value-added shares of low-skilled workers in emerging economies declined from 1995 to 2008. A typical example of the smiling curve is Apple. According to Kraemer, Linden, and

¹⁰ Source of data: Mudambi (2008).

¹¹ It is worth noting that the smiling curve describes the phenomenon of values captured by firms at different locations in a GVC. It has different meaning for different actors. Chinese manufacturing firms are the least profitable actors of a GVC. However, for the MNCs, it means their costs in this part of the curve are low. Mudambi (2008) suggests MNCs can control GVCs by concentrating on R&D and marketing while outsourcing low value-added assembly and processing to firms located in emerging economies.

Dedrick (2011), Chinese labor accounts for 1.8% of the total value for iPhone (Figure 16) and 2% of the total value for iPad (Figure 17).

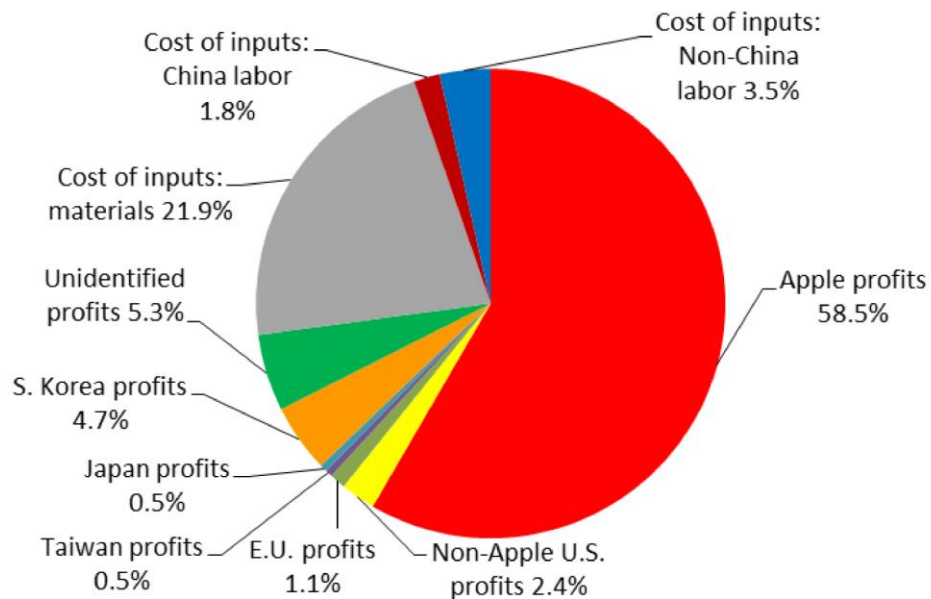


Figure 16 Distribution of Values for iPhone (2010)¹²

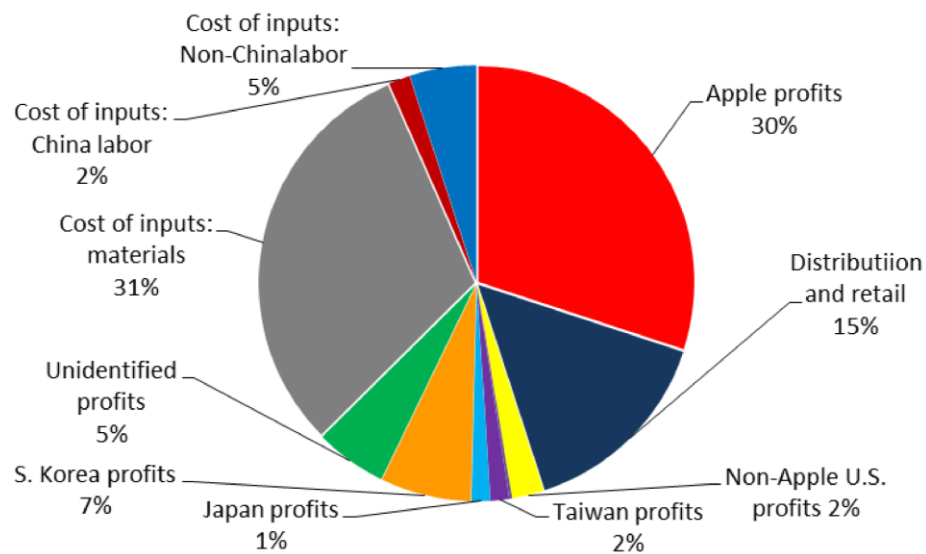


Figure 17 Distribution of Values for iPad (2010)

As pointed out by Chen (2004), the smiling curve indicates an underpinning power relation. In a GVC, the MNCs are the regulators while the Chinese OEM firms are the regulatees. As suppliers for MNCs located at the ends of a smiling curve, Chinese OEM firms are dependent on these MNCs (Morck, Yeung, and Zhao, 2008). As revealed in the DVD case, the dependence mainly lies in technologies, in particular, those protected by patents and adopted as standards.

¹² Data source for Figure 16 and 17: Kraemer, Linden, and Dedrick (2011).

5.2.3 Strategies to avoid a similar trap

After the DVD case, the Chinese government and firms became familiar with the doctrine that “First-class enterprises set standards; second-class enterprises develop technology; third-class enterprises manufacture products.”¹³ China responded to the DVD case directly by developing its own standards, exemplified by the Audio Video coding Standards (AVS). With the development of the 3G and 4G wireless networks, DVDs are gradually being replaced by online TV where people can watch live programs, sometimes for free. When high-definition digital TV became a potential market, China started early to develop its own national standards for the industry. In early 2002, China set up the Audio Video Coding Standard Working Group (AVS Workgroup).¹⁴ The AVS standards have saved Chinese digital TV producers patent royalties amounting to tens of billions of dollars (Huang and Zhang 2017).

But the two lessons mentioned above revealed more imperative problems behind standardization. The fact that most Chinese firms are located in the middle of the smiling curve (location 3 in Figure 15) indicates they capture the lowest value in GVCs. China began to find ways to push its domestic firms up the smiling curve, either through investing in innovation (towards the input side) or through enhancing the reputation of “Made in China” (towards the market side). But such efforts encountered inertia from some domestic firms. MNCs come to China for its lower labor cost. Climbing up the smiling curve means Chinese firms have to abandon the labor-intensive development model that has made them profitable. The risk is that they will lose their competitive advantage; some of them may not survive. This paradox is compounded by the unbalanced development between regions (Gao et al. 2017). There are always some places with cheaper wages that provide Chinese firms with the incentive to make profits based on labor costs, rather than shifting to another part of the smiling curve.

China began to develop and deploy standards in all strategic industries because standardization is also critical to the competitiveness of a state. In 2015, China promoted standardization as a national strategy¹⁵ which set clear goals that (1) the impact and contribution of Chinese standards

¹³ This is translated from Chinese. This slogan has been widely used by the Chinese government and firms regarding what they have learned about the importance of standards. It has been popular in IP training materials with government officials and corporate managers as the audience.

¹⁴ See the official website of the Audio and Video Coding Standard Workgroup of China (AVS Workgroup) for its mission, organization and history: <http://www.avs.org.cn/english/>.

¹⁵ State Council issued the Notice of the State Council on the Scheme for Deepening Reform of Standardization 国务院关于印发深化标准化工作改革方案的通知 [Guowuyuan Guanyu Yinfā Shenhua Biaozhunhua Gongzuo Gaige Fang'an de Tongzhi], No. 13 (2015) 国发(2015) 13 号 [guofa (2015) 13 hao]. State Council General Office issued the Notice of the General Office of the State Council on Issuing the Plan for the Construction and Development of the National Standardization System (2016-2020) 国务院办公厅关于印发国家标准化体系建设发展规划（2016-2020 年）的通知 [Guowuyuan Bangongting Guanyu Yinfā Guojia Biaozhunhua Tixi Jianshe Fazhan Guihua (2016-2020 nian) de Tongzhi], No. 89 (2015) 国办发（2015）89 号 [Guobanfa (2015) 89 hao].

should be considerably enhanced, and (2) China will become the world's leading standard power 标准强国 [biaozhun qiangguo] in the world by 2020.¹⁶ In the 39th ISO General Assembly held in Beijing in 2016, the Chinese President Xi Jinping sent a written message to the Assembly:

China will actively implement the strategy of standardization. We will promote innovative, coordinated, green, open and sharing development with the support of standards. Together with all countries in the world, we are ready to deepen cooperation in standards, enhance exchanges and mutual learning, and improve the system of international standards (Gasiowski-Denis 2016).

Both hosting the ISO General Assembly and the content of President Xi's message demonstrate the political will of China to engage and lead international standardization. Since 2006, China also promoted indigenous innovation through the accreditation of indigenous innovative products¹⁷ Indigenous innovation 自主创新 [zizhu chuangxin] has been measured by whether a product was accredited as "indigenous" intellectual property in various policies. Specifically, patents for a patented product must be wholly owned by Chinese firms and trademarks for a branded product must be first registered in China. Products accredited as containing indigenous intellectual property were given preferential treatment in public procurement. After these indigenous innovation policies were first implemented in 2009 for six selected technology fields,¹⁸ they were criticized by the US as measures discriminating against MNCs (McGregor 2010, USITC 2011). These criticisms were groundless because China was not a member of the WTO Governmental Procurement Agreement (GPA). However, under pressure, the implementation policy for the second round of accreditation was significantly changed in 2010, so that MNCs can apply for indigenous innovative products on an equal footing as Chinese

¹⁶ Section 1.3, Plan for the Construction and Development of the National Standardization System (2016-2020).

¹⁷ Ministry of Science and Technology (MOST), Ministry of Finance (MOF) and National Development and Reform Commission (NDRC) jointly issued *the Administrative Measures for Accreditation of Indigenous Innovative Products for Trial Implementation* 国家自主创新产品认定管理办法（试行） [Guojia Zizhu Chuangxin Chanpin Rending Guanli Banfa (Shixing)], No. 539 (2006) 国科发计字(2006) 539 号 [Guokefajizi (2006) 539 hao]. These Measures were officially abolished by MOST, MOF and NDRC from July 10, 2011 by their *Notice on Stop Implementing the Administrative Measures for Accreditation of Indigenous Innovative Products for Trial Implementation* 关于停止执行《国家自主创新产品认定管理办法（试行）》的通知 [Guanyu Tingzhi Zhixing Guojia Zizhu Chuangxin Chanpin Rending Guanli Banfa (Shixing) de tongzhi], No. 260 (2011) 国科发计字(2011) 260 号 [Guokefajizi (2011) 260 hao].

¹⁸ These fields include: computer and application equipment, communications products, modern office equipment, software, new energy and equipment and energy efficient products.

entities.¹⁹ After this change, the indigenous innovation policy is less likely to be able to fulfill its purpose of promoting the technology independence of Chinese companies.

Following the failed indigenous innovation policies, China relied on a subtler use of mechanisms of intellectual property law and competition law. The key IP policy was *Regulations on National Standards that Involve Patents (Temporary)*²⁰, formulated by the SCA and SIPO at the end of 2013. It addresses issues arising from the procedure of developing national standards, such as the disclosure of patent information and using fair, reasonable and non-discrimination (FRAND) as a principle to determine royalty rates in the licensing of the SEPs. The Chinese *Anti-Monopoly Law* (2007) provides a legal basis for investigating unreasonable licensing fees. The regulators²¹ have actively enacted supplemental rules for the *Anti-Monopoly Law* (2007) on IP related issues. For instance, in February 2015, the NDRC completed its investigation into Qualcomm and found Qualcomm violated the *Anti-Monopoly Law* (2007) by abusing its market power, specifically by attaching an unreasonable requirement in patent licensing. The NDRC ordered Qualcomm to stop its abuse of market power and imposed NDRC imposed a fine equal to 8% of Qualcomm's revenue in 2013, resulting in a fine of CNY 6.088 billion (USD 975 million).²²

Recent regulations have also addressed the dynamics between competition and intellectual property. For instance, the State Administration for Industry and Commerce (SAIC) promulgated *Provisions on the Prohibition of Abuse of Intellectual Property to Exclude or Restrict Competition*

¹⁹ According to the 2010 *Notice Concerning the Accreditation of Indigenous Innovation Products (draft for comments)*, the requirement of indigenous intellectual property has been abandoned. A company can be accredited as long as a company has the right to use an intellectual property and there is no dispute about the ownership of the intellectual property.

²⁰ Standard Administration Committee of China (SAC) and the State Intellectual Property Office (SIPO) jointly promulgated *the Regulations on National Standards that Involve Patents (Temporary)* 国家标准涉及专利的管理规定 (暂行) [Guojia Biaozhun Sheji Zhuanli de Guanli Guiding (Zanxing)], No. 1 (2013) 2013 年第 1 号 [2013 nian di 1 hao].

²¹ There are three regulators on anti-monopoly in China: SAIC and the NDRC are responsible for the investigation of monopolistic agreements among business operators and abuse of dominant market positions by business operators (Article 3.1 and 3.2 of *Anti-monopoly Law* (2007)); specifically, the SAIC is responsible for non-price related violations while the NDRC is responsible for price related violations. In addition, MOFCOM is responsible for investigations concerning concentration of business operators that eliminates or restricts competition or might be eliminating or restricting competition (Article 3.3 of *Anti-monopoly Law* (2007)).

²² NDRC Decision for Administrative Penalty No. 1 (2015) General Office of NDRC 国家发展和改革委员会行政处罚决定书 发改办价监处罚 (2015) 1 号 [Guojia Fazhan he Gaige Weiyuanhui Xingzheng Chufa Jueding Shu Fagai Ban Jiajian Chufa (2015) 1 Hao].

in 2015.²³ The *Anti-Monopoly Guidelines on the Abuse of Intellectual Property Rights*²⁴ are in the drafting process. As will be discussed in Section 5.4.3, these IP and competition laws and regulations get private actors and rule-implementers on board to regulate standardization on a case-by-case basis.

5.2.4 Summary

The DVD case was a trigger for China to think about its position in the GVCs that form the basis of modern production, as well as its degree of technology independence after two decades of market reform and opening-up. The DVD case stimulated China into developing various strategies to push its own companies into climbing up the smiling curve and achieve a greater degree of technology independence. To summarize, these strategies include: (1) promote standardization as a national strategy, (2) develop indigenous innovation policies, and (3) apply IP and competition laws and regulations to standards. So far, indigenous innovation policies have proved a failure. Over time, China emphasized the other two strategies. An overview of this big picture is important to this chapter because it provides a contextual explanation for why China undertook Standardization as a national strategy.

5.3 WAPI: failed attempts at standardization, both domestically and internationally

Informed by the DVD case, China deployed standardization as a key strategy to develop the ITC industry. Of the seven strategic emerging industries in China,²⁵ next-generation information technology²⁶ is the only one that may represent the “international competitive advantage” of China. This section will use China’s attempts to implement its home-grown WLAN standard, Wired Authentication and Privacy Infrastructure (WAPI) as compulsory national standards and international standards. These attempts illustrate how China has engaged international standardization and the difficulties it has faced.

²³ SAIC, *Provisions on the Prohibition of Abuse of Intellectual Property to Exclude or Restrict Competition* 关于禁止滥用知识产权排除、限制竞争行为的规定 [Guanyu Jinzhi Lanyong Zhishichanquan Paichu, Xianzhi Jingzheng Xingwei de Guiding], SAIC No. 74, 国家工商行政管理总局令第 74 号 [Guojia Gongshang Xingzheng Guanli Zongju Ling di 74 Hao]. These Provisions regulate market entities’ monopolistic behaviour in the use of their intellectual property, including exercising their IP rights in a way that violates the *Anti-Monopoly Law* (2007), the implementation of a conspiracy or collusion, and the abuse of their market domination position.

²⁴ The guideline has been drafted jointly by the NDRC, SAIC, MOFCOM and SIPO, and it has already gone through three rounds of calling for comments.

²⁵ China has formulated various policies to cultivate seven strategic emerging industries in recent years, on the assumption that they represent the direction for the development of future industries and will be determinants of the competitiveness of states in the future. See note no. 39 in Chapter 4.

²⁶ The new generation information technology covered industries like the “next-generation communications network, Internet of things, integration of Telecommunications networks, computer networks and cable television networks, new flat panel display, high-performance integrated circuits and cloud computing”.

5.3.1 WAPI failed to be adopted as compulsory national standards

So far, WLAN standards have been developed mainly by the Institute of Electrical and Electronics Engineers (IEEE), a standardization organization in the US. The WAPI standard was developed by the China Broadband Wireless IP Standard Group (CBWIPSG) to make up the security hole in the existing WLAN standards. Developing the WAPI standards was part of indigenous innovation efforts to gain China more technology independence. As pointed out by (Gao 2008), China expected its own WAPI standards to replace the incumbent WLAN technologies controlled by foreign companies. Table 13 illustrates how various Chinese stockholders attempted to promote WAPI standards²⁷ as compulsory national standards and how their efforts are resisted by the US. The US government and Intel politicalized this issue by putting it on the agenda of bilateral negotiations. As a result, the implementation of WAPI as compulsory national standards was suspended indefinitely in 2004.

Table 13 Timeline for Proposing WAPI as Compulsory National Standards

Time	Actor	Event
June 2001	Ministry of Information Industry (MII), China Broadband Wireless IP Standard Group (CBWIPSG)	The Ministry of Information Industry announced a research and development plan for drafting China's own WLAN standards. In total, 26 research institutes and firms were recruited to implement the plan. They later established the CBWIPSG to undertake a research project to develop a Chinese WLAN standard.
May 12, 2003	Standard Administration Committee of China (SAC)	The SAC announced two standards (GB15629.11-2003 and GB15629.1102-2003) drafted by the CBWIPSG, which are the key standards of WAPI.
July 9, 2003	Ministries in charge of standardization	Eight ministries in China, including MII and SAC, organized a promotion and implementation conference in Beijing, which determined the WAPI standards as compulsory national standards. The WAPI standards were to be implemented in China by December 1, 2003.

²⁷ WAPI primarily include two standards: (1) GB15629.11-2003 which refers to Information Technology – Telecommunications and Information Exchange Between Systems Local and Metropolitan Area Networks – Specific Requirements – Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specification 信息技术系统间远程通信和信息交换局域网和城域网特定要求第 11 部分: 无线局域网媒体访问 (MAC)和物理(PHY)层规范; and (2) GB15629.1102-2003 Information Technology – Telecommunications and Information Exchange Between Systems – Local and Metropolitan Area Networks – Specific Requirements – Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specification: Relatively High Speed Physical Layer of 2.4GHz Frequency Expanding Specification 信息技术系统间远程通信和信息交换局域网和城域网特定要求第 11 部分: 无线局域网媒体访问(MAC)和物理(PHY)层规范: 2.4GHz 频段较高速物理层扩展规范.

Time	Actor	Event
November 23, 2003	IEEE	Paul Nikolich, Chair, IEEE 802, sent a letter ²⁸ to Li Zhonghai, Chairman of the SAC and Wang Xudong, Minister of the MII, saying that WAPI would unnecessarily fracture the world market for WLAN products.
November 26, 2003	General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ), SAC	The AQSIQ and SAC jointly published a notice ²⁹ stating China would implement compulsory certification to WLAN products. The WAPI standards would be the only standards on which compulsory certification would be issued. The WAPI standards would be implemented from December 1, 2003. From that date, any importation, production, and selling of WLAN products not conforming to the WAPI standards would be forbidden.
December 2003	AQSIQ, National Certification and Accreditation Administration Committee (NCAAC)	AQSIQ and the NCAAC jointly announced a notice, which extended the implementation of WAPI as a compulsory national standard until June 1, 2004.
March 2004	US politicians	US Secretary of Commerce Donald Evans, US Secretary of State Colin Powell and US Trade Representative Robert Zoellick jointly sent a letter to Chinese Vice Premiers Wu Yi and Zeng Peiyan, asking China to reconsider the implementation of WAPI as a compulsory national standard.
March 2004	Intel and other US chipmakers	Intel and Broadcom, the major Wi-Fi chipmakers, opposed the WAPI standards by announcing that they would stop selling products with Wi-Fi chips in China from June 1, 2004 (Kanellos 2004).
April 22, 2004	US and Chinese high-level officials at the US-China Joint Commission on Commerce and Trade (JCCT) in 2004	In the 2004 JCCT, WAPI was one of the top priorities for the US. China agreed to “suspend indefinitely its proposed implementation of WAPI as a mandatory wireless encryption standard.” The US also agreed to “support Chinese WAPI to become an international standard”. ³⁰

Intel was one of the key MNCs opposing WAPI and the biggest winner from the indefinite suspension of WAPI beginning in April 2004. Intel first introduced its flagship of Centrino in early 2003, in which its wireless network conforming to Wi-Fi standards was tied to its processor and chipset. Intel was concerned about China’s plan to adopt WAPI as compulsory national standards. This is because such adoption meant that Intel’s Centrino, featuring Wi-Fi, could not enter the Chinese market without installing WAPI, the competing Chinese WLAN standard.

Intel lobbied the US government to prevent China from adopting WAPI as compulsory national standards and threatened China with an embargo on Wi-Fi chips. Later, the US put WAPI as a

²⁸ *IEEE 802 LMSC and SAC Standards GB15629.11 and GB 1529.1102*, the letter from Paul Nikolich, Chair, IEEE 802 Local and Metropolitan Area Network Standards Committee, to Li Dongsheng, Standardization Administration of China (SAC), November 23, 2003, available at http://www.ieee802.org/16/liaison/docs/L80216-03_19.pdf.

²⁹ AQSIQ and SAC, Notice Concerning the Implementation of the Compulsory National Standards in WLAN 关于无线局域网强制性国家标准实施的公告 [Guanyu wuxian Juyuwang Qiangzhixing Guojia Biaozhun Shishi de Gonggao], No. 110 (2003), November 26, 2003.

³⁰ USTR, *The US-China JCCT: Outcomes on Major US Trade Concerns*, available at https://ustr.gov/archive/Document_Library/Fact_Sheets/2004/The_US-China_JCCT_Outcomes_on_Major_US_Trade_Concerns.html.

top agenda at Joint Committee Commerce and Trade (JCCT) in 2004, one of the highest-level US-China bilateral fora. Finally, Wu Yi, the Chinese vice Premier announced that China would indefinitely suspend implementing WAPI as national compulsory encryption standards.³¹

China's development of WAPI also attracted academic attention from the US. Some academics argued that WAPI would constitute a violation of the WTO TBT Agreement and the national treatment principle in GATT (Cromer 2005, Gibson 2007). Following such argument, the only conclusion would be that WAPI should not be implemented, which in turn justified the US' intervention in the implementation of WAPI policy in China. For the TBT violation accusation, China could have counter-argued that WAPI could be considered as standards to fulfill the "legitimate objective of national defense" as stipulated in TBT Article 2.2.³² But the Chinese government give up this position.

5.3.2 The journey for WAPI to go global

The 15th JCCT report in 2004 announced that while China agreed to indefinitely suspend WAPI as compulsory national standards, the US promised that it would support WAPI to become international standards.³³ China initiated the international standardization of WAPI two weeks after the announcement of the domestic suspension. The SAC, as a National Body (NB) representing China, proposed a WLAN standard (JTC1 N7506) based on WAPI at the International Organization for Standardization and the International Electrotechnical Commission Joint Committee (ISO/IEC JTC1). One month after the ISO/IEC JTC received the Chinese proposal, the UK opposed this proposal and submitted a competing proposal (JTC1 N7537) on the basis of IEEE 802.11i. The process of China's efforts to globalize WAPI is illustrated in Table 14. The timeline shows that the ISO did not treat China NB in the same way that it did the IEEE in the procedure for assessing WAPI and 802.11i. The Chinese proposal was canceled in September 2004 and it missed the opportunity to be discussed at the Orlando meeting. The reason

³¹ There were news reports that China used WAPI as a bargaining chip so that the US relaxed its restrictions on the exporting of defense technologies to China. But this claim was not officially confirmed.

³² Article 2.2 TBT stipulated that "members shall ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade. For this purpose, technical regulations shall not be more trade-restrictive than necessary to fulfil a legitimate objective, taking account of the risks non-fulfilment would create. Such legitimate objectives are, inter alia: national security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment. In assessing such risks, relevant elements of consideration are, inter alia: available scientific and technical information, related processing technology or intended end-uses of products."

³³ Though such support was not clearly stated in the USTR fact sheet, Intel expressed its positive attitude that China would propose WAPI as an international standard. Intel commented after the JCCT that "the decision by China to work through the international standards process to evolve the WAPI standard demonstrates its commitment to leadership in the IT industry." This information was further reiterated by the Vice Minister of the MIIT in 2007 when Intel established its manufacturing base in Dalian. See Section 5.2.5.1

for this cancellation, “an administrative error”, was announced three months later. The proposal was ignored again at the Frankfurt Meeting in 2005. After persistent appeals by the Chinese NB, the Chinese and UK proposals were put on a parallel fast-track starting from the same date, despite the Chinese proposal being submitted one month earlier. The IEEE 802.11 Working Group engaged in intensive lobbying during the five-month balloting process by releasing detailed arguments against WAPI (EE Times 2006), something China unsuccessfully appealed.

Table 14 Timeline of WAPI’s Failure as an ISO Standard

Time	Event
July 27, 2004	The SAC, the China National Body, submitted a proposal for WAPI security mechanism at ISO/IEC JTC1 SC6 ³⁴ and requested a fast-track procedure.
August 2, 2004	ISO/IEC JTC1 SC6 published the Chinese WAPI proposal in document JTC1 N7506. It took three months for publication and review of the proposal.
August 25, 2004	The UK NB submitted a rival standard (JTC1 N7537) on the basis of IEEE 802.11i to the SC6.
Mid-September, 2004	The Chinese proposal JTC1 N7506 was canceled before the end of the publication and review period without explanation. The UK proposal JTC1 N7537 was published and put on a fast-track procedure.
Nov. 8-12, 2004	ISO/IEC JTC1/SC6 Orlando Meeting <ul style="list-style-type: none"> · The Chinese proposal N7506 was not discussed because it was “non-existent.” · Four of the six Chinese delegation members (including three drafters of WAPI standards) were denied their visas to go the US to participate at the Orlando Meeting. · China NB addressed the meeting, revealing the obstacles that China NB has experienced.³⁵ · Because of the resistance from the Chinese NB, the Orlando Meeting resolved that the Frankfurt Meeting to be held in February 2005 would “discuss China’s submission and China’s comments on 802.11i”.³⁶

³⁴ ISO/IEC JTC1 SC6 refers to the Joint Technical Committee, Subcommittee 6, of the International Organization for Standardization and the International Electrochemical Commission.

³⁵ ISO/IEC JTC 1/SC 6 Plenary and WG Meetings, *Opening Comments of China NB*, ISO/IEC JTC1/SC6 N12766, November 8, 2004, available at: <http://www.chinabwips.org/doc/N12766.pdf>.

³⁶ IEEE 802.11 ISO JTC1-SC6 SG1 Ad-Hoc Committee Conference Call, IEEE 802.11/JTC1 Engagement, submission from Jesse Walker, IEEE 802 Liaison to JTC1/SC6, doc.: IEEE 802.11-04/1547/ro, December 2004, Slide 4, available at: <https://mentor.ieee.org/802.11/dcn/04/11-04-1547-00-0000-ieee-802-jc1-sc6-engagement.ppt>.

Time	Event
December 2004	<ul style="list-style-type: none"> The IEEE clarified why the Chinese proposal was canceled: “through administrative error, the JTC1/SC6 Secretariat removed China’s submission.” In addition, “JTC1/SC6/WG1 Project Editor has invited China to resubmit its proposal.”³⁷ The China NB sent a letter to the SC6 Secretariat, complaining that the resubmission would let the UK proposal enter the ballot stage earlier.³⁸
January 2005	SC6 recommended China to first submit the WAPI standard to the IEEE to get approval. However, China rejected this recommendation as unnecessary. ³⁹
February 2005	ISO/IEC JTC1/SC6 Frankfurt Meeting ⁴⁰ <ul style="list-style-type: none"> Chinese proposal JTC1 N7506 was not discussed as planned in the Orlando Meeting resolution. China NB withdrew its attendance at the meeting before the end and published an announcement protesting the unfair treatment.⁴¹
April 21, 2005	China appealed to the Technical Management Board (TMB) of the ISO, ⁴² condemning the unfair treatment in the Frankfurt Meeting and requesting the suspension of the balloting for N7537. The balloting for N7537 was suspended.
May 15-17 2005	Geneva Meeting (exceptional meeting to address the Chinese appeal). The ISO formed a special group to resolve the technical issue. ⁴³

³⁷ Ibid, Slide 4 of IEEE 802.11-04/1547/ro.

³⁸ “N7506 didn’t turn back to normal process on the basis of SC6 Orlando meeting resolution. But N7537, which was submitted later than N7506, has entered DIS ballot stage”, in the letter from Chinese NB to Ms. Jooran Lee, *Chinese NB’s Urgent Request for Action on IN7506 and IN7537*, December 20, 2004, available at:

<http://www.chinabwips.org/doc/Chinese%20NB%20Urgent%20Request%20for%20Action%20on%20IN7506%20and%20IN7537.pdf>.

³⁹ *Chinese NB reply about WLAN proposal*, letter from Zhang Lin, Director General of the SAC International Standards Department to Mrs. Lisa Rajchel, February 6, 2005, available at: <http://www.sc6.org/doc/Chinese%20NB%20reply%20about%20WLAN%20proposal.pdf>.

⁴⁰ Ibid. As part of the communications before the Frankfurt Meeting, this letter from the Chinese NB suggested that the Chinese proposal was first approved by the IEEE before discussion at the ISO, but this suggestion was rejected by the Chinese NB.

⁴¹ ISO/IEC JTC1 SC6 WK1 Interim Meeting, *Disputes Surrounding N7506 and N7537 Emerged on the First Day Meeting*, Letter submitted by the Chinese NB, February 22, 2005, available at: http://www.chinabwips.org/doc/1F03_20050222-ChinaFirstdayrecordsFrankfurtmeeting.pdf. ISO/IEC JTC1 SC6 WK1 Interim Meeting, Final Statement of the Chinese National Body, February 23, 2005, available at: <http://www.chinabwips.org/doc/ATT2-Final%20Statement%20of%20the%20Chinese%20National%20Body.Germany.%202005-02.pdf>.

⁴² *A Letter of Appeal to ISO/IEC SMB/TMB from Chinese National Body*, submission from Chinese NB after the Frankfurt Meeting in 2005, available at: <http://www.chinabwips.org/doc/A%20Letter%20of%20Appeal%20to%20ISOIEC%20SMBTMB%20from%20Chinese%20National%20Body.pdf>.

⁴³ *Fast-track Processing of IEEE 802.11i and SAC’s WAPI Proposal*, Letter from Slan Bryden, Secretary-General of ISO and Aharon Amit, General Secretary of the IE, to the National Bodies of ISO/IEC JTC 1 SC6 and to all ISO/IEC JTC 1 National Bodies, available at: <http://www.chinabwips.org/doc/Fast-track%20processing%20of%20IEEE%20802.11i%20and%20SAC%20WAPI%20proposal.pdf>. *Revised Recommendations and Resolutions from the Special Working Group meeting, Beijing, 8-12 August 2005*, ISO/IEC WAPI N36 Rev.1, August 19, 2005, available at: <http://www.chinabwips.org/doc/N%2036%20Rev.%201%20Revised%20Recommendations%20and%20resolutions%20from%20the%20Special%20Working%20Group%20meeting.%20Beijing.%208-12%20August%202005.pdf>.

Time	Event
August 29 - September 2, 2005	ISO/IEC JTC1/SC6 St Paul De Vence Meeting <ul style="list-style-type: none"> China NB proposed to establish a joint working team to harmonize the two proposals.⁴⁴ The meeting resolved to undertake a parallel fast-tracking ballot for IEEE802.11i and WAPI with voting closing on the same date (Resolution 6.1.6).⁴⁵
September 7, 2005	Despite China's objection to the above resolution of the St Paul De Vence Meeting, the balloting started from September 7, 2005, and voting lasted five months.
February 22, 2006	China sent a letter to all members of the ISO/IEC JTC1/SC6 about the "IEEE's unethical activities" ⁴⁶ during the balloting.
March 2006	The ISO rejected the Chinese proposal and adopted IEEE 802.11i as an international standard for WLAN.
April 21, 2006	China NB submitted to the ISO/TMB, IEC/SMB and the Central Secretariat of ISO/IE an appeal: <i>Unjust Activity, Undue Process, Unfair Results Ethical and Procedural Violations in WAPI-11i Fast-track Process</i> . ⁴⁷
2009 onwards	China NB resubmitted WAPI in 2009, but eventually withdrew WAPI in October 2011 ⁴⁸ for unknown reasons.

The above timeline also shows that when facing controversies in the ISO procedure, the Chinese NB tried to communicate with the ISO and appealed to the TMB on issues of unfair treatment. For instance, at the Orlando Meeting, the Chinese representative addressed a series of events that formed "a pattern of irregularity, deception, mishandling, discrimination, and obstruction against the China NB within this group".⁴⁹ These obstacles included (1) China's request to put WAPI into fast track was ignored; (2) the Resolution Group discarded China NB's comments and canceled the Chinese proposal before the end of the review period, (3) visas for the Chinese delegation to go to the US were denied. After the balloting result came out, China NB submitted its second appeal, complaining that the ISO balloting was unfairly influenced by IEEE's unethical behavior and prejudices.⁵⁰ China NB also demonstrated its discontent by withdrawing attendance from the

⁴⁴ Action plan proposed by Chinese National Body on August 30, 2005, available at: <http://jtc1sc6.org/doc/SC6WG1-SPV025-CHN-007-Solutions%20from%20CNB.pdf>

⁴⁵ SC6 WG1 Resolutions for Closing Plenary of WG1, August 31, 2005, available at: <http://www.chinabwips.org/doc/SC6%20WG1%20Resolutions%20for%20Closing%20Plenary%20of%20WG1-v5.pdf>

⁴⁶ Chinese National Body (SAC), *Urgent Alert on IEEE's Recent Unethical Activities*, available at: <http://www.chinabwips.org/doc/Urgent%20Alert%20on%20IEEE%20Recent%20Unethical%20Activities.pdf>.

⁴⁷ Chinese National Body, *Unjust Activity, Undue Process, Unfair Results: Ethical and Procedural Violations in WAPI-11i Fast-track Process*, April 21, 2006, available at: <http://www.chinabwips.org/doc/Unjust%20Activity,%20Undue%20Process,%20Unfair%20Results.pdf>.

⁴⁸ IEEE 802 JTC1 Standing Committee, *Minutes of JTC1 standing committee in Jacksonville in January 2012*, Para. 8.c: "China NB announced WAPI withdrawn on 21 Nov 2011 comment resolution call," avail-able at <https://mentor.ieee.org/802.11/dcn/12/11-12-0199-00-0jtc-jacksonville-minutes-jan-2012.doc>.

⁴⁹ See supra note no. 35.

⁵⁰ See supra note no. 46.

Frankfurt Meeting and publishing an open comment afterward. Nonetheless, the Chinese effort did not change the result — 802.11i was adopted as an international standard. Though China tried to resubmit WAPI in 2009, China NB eventually withdrew it in November 2011.

An unbiased procedure would not necessarily have changed the result, but the prejudiced procedure definitely demonstrated how the US, through IEEE, counteracted China's effort to make WAPI a global standard. Another explanation for the failure of WAPI is that China did not form a coalition for the ballot (Kennedy 2006). This argument, however, neglects the point that it was the wide coalition made by IEEE that denied basic procedural justice to China.

All these details indicate what it means for China to be an IP power in the world. Even if China manages to match the US in terms of IP standards, there are other dimensions to winning a standards game. The liaison with the ISO, the familiarity of application procedures (including intentional mistakes to delay the procedure), subtle manipulation of the balloting, coalition building, and even small tricks such as denying a Chinese representative his/her visa contributed to the US' win. For China, having patents is not enough — it is only the first step.

5.3.3 The mobile phone market: a new opportunity for WAPI?

After the indefinite suspension of WAPI as compulsory national standards, the marketing expansion of WAPI became slower than that of Wi-Fi in China. Nonetheless, products with WAPI standards were prioritized in government procurement. In addition, the Beijing 2008 Olympic Games exclusively adopted WAPI standards. The WAPI Alliance, the successor of the CBWIPSG was established in 2006 (Cao 2006).

WAPI did not completely lose the Chinese market due to the indefinite suspension, in particular in the mobile phone market. The suspension worked differently for PCs and mobile phones. This is mainly because the vendors of mobile phones in China are the three state-owned telecommunication operators in China (China Mobile, China Unicom, and China Telecom) and the Ministry of Industry and Information Technology (MIIT) tightly controlled market access for mobile phones in the Chinese market through issuing a unique identification number for each phone. In April 2009, the MIIT convened a meeting with all mobile phone producers selling products in the Chinese market, informing them that if a mobile phone with Wi-Fi wanted to enter the Chinese market, it should also install WAPI (Cheng 2009).

This tie-in strategy proved to be successful. In 2009, using mobile phones to access the Internet became popular. Motorola, Apple, Samsung competed to enter the huge smartphone market in China. Motorola was the first company complied with the MIIT requirement to install WAPI and became the first to launch Internet-enabled mobile phones in the Chinese market. At first, Apple refused to install WAPI for its iPhone, but then it ultimately agreed and entered the Chinese market in May 2010 (Qin 2010).

There are several reasons for the effectiveness of adopting the WAPI standards in mobile phones. First, the market structure of mobile phones is different from that of PCs. Since access to the mobile phone market is controlled by the MIIT and the interests of vendors are divergent, it is difficult for mobile phone vendors to act collectively. Secondly, the timing was different. In 2003, Intel was eager to be the first mover in the Chinese market. In 2009, with the wide-spread use of hotspots, Wi-Fi had become a *de facto* WLAN standard in China. After losing its first opportunity to expand the market, IWNComm, the major developer of WAPI, could not afford to deploy adequate hotspots. That determined Wi-Fi's dominance of the market because a consumer would not choose to use WAPI due to insufficient hot-spots. Thirdly, Intel, as a supplier of the Wi-Fi enabled chipset, was tolerant rather than confrontational in 2009 when the MIIT announced its decision and did not interfere in the process.

5.3.4 Standard without market: the implementation game for WAPI

After Internet-enabled mobile phones equipped with WAPI spread in the Chinese market, IWNComm, the leading company of the WAPI Alliance and the patent holder of SEPs related to WAPI, started collecting royalties for WAPI-related SEPs. However, some mobile phone manufacturers that had WAPI installed on their phones refused to pay royalties. For instance, IWNComm claimed that Sony refused substantive negotiations, or intentionally prolonged the negotiations with IWNComm over the royalties of WAPI-related SEPs. IWNComm thus sued Sony at the Beijing Intellectual Property Court in 2015 for patent infringement.

The Beijing Intellectual Property Court found (1) the patent at issue was a basic invention in the area of WLAN, (2) the patent was granted science and technology prizes by the Chinese government and had been adopted as SEP in the national compulsory standard, and (3) the defendant was at fault in the licensing negotiations. The court argued that the fact that the patents at issue in that case were SEPs did not change the criteria to determine infringement. The court further decided that infringement was established, issued an injunction ordering Sony to stop infringement, and decided the reasonable royalty rate for WAPI-related SEPs (1 CNY/phone) based on the market price. In addition, the court supported IWNComm's claim for treble

damages⁵¹ as well as reasonable costs, which amounted to CNY 9.1 million (USD 1.32 million Equivalent).⁵²

This IWNComm vs Sony case became the start for IWNComm to collect royalties for using WAPI-related SEPs. While the procedure of the case against Sony was still going on, IWNComm waged another lawsuit against Apple in April 2014. The case has not yet been concluded at the time of writing this thesis. According to MIIT statistics, there were CNY1.47 billion mobile phone users in China by the end of March 2018, 81.5% of which are mobile broadband users (MIIT 2018). That means the WAPI Alliance may collect CNY 1.47 billion licensing fee based on the CNY 1 per phone established by the case against Sony, not to mention possible treble damages in similar cases that may follow.

A prominent part of the decision was the treble damages. Though China proposed to revise its patent law to include treble damages,⁵³ it is not stipulated in a promulgated law and thus is not enforceable. The enforcement of treble damages prior to the enactment of an amendment was a case of judicial activism where judges not only articulate the law but also create the law.

Considering the size of the Chinese market, MNCs cannot afford to defy the court judgment and exit the Chinese market. As long as they do business in China, they are subject to regulation by domestic laws and court decisions. In this context, judicial activism means that courts, as a rule-implementers, began to be part of the standardization game. Section 5.4.2 will further analyze the role of law-implementers.

5.4 Discussion: technology hegemony or technology nationalism?

From the initiation of the WAPI standard until the decision in the IWNComm vs Sony case, the WAPI story lasted 17 years. Various non-state actors, including MNCs, domestic Chinese enterprises, and international SSOs were involved in the case. So far, domestic implementation of WAPI has been successful in mobile phones but has failed for the PC market. The globalization

⁵¹ “Treble damages” refers to recovery of three times the license fees of the patent at issue in the case. It is worth noticing that though treble damages were proposed in the draft of the fourth amendment of the Patent Law in 2015, it was not in Chinese legislation when the decision was made. Treble damages were proposed in Article 68.1 of the Draft for Comment the Fourth Amendment of the Patent Law: “regarding intentional patent infringement, a people's court may determine the amount of loss according to the circumstances, scale, damage consequences, etc, and then determine the damages to be paid by the infringer more than one time and less than three times of the loss.” See the Legislative Affairs Office of the State Council, Notice Concerning Call for Public Comment on the Draft for Patent Law Amendment (Draft Submitted for Deliberation) 国务院法制办公室关于《专利法修订草案（送审稿）》公开征求意见的通知 [Guowuyuan Fazhi Bangongshi Guanyu Zhuanlifa Xiuding Cao'an (Songshengao) Gongkai Zhengqiu Yijian de Tongzhi], December 2, 2015, available at: <http://images.chinalaw.gov.cn/www/201512/20151202075620423.doc>

⁵² The exact number of the damages is CNY 9,103,367. The exchange rate of the day on which the decision was made is USD 1 = CNY 6.8889.

⁵³ See supra note no. 51.

journey of the WAPI standard has failed completely. The war for royalty collection for WAPI-related SEPs in domestic Chinese courts has just started and the WAPI owner won the first case.

WAPI has been one of the most debated Chinese standards in literature in the English language. In addition to the criticism that it may violate the WTO TBT agreement which China has not yet signed, it has also been used as an exemplar to show the increasing “neo-technological nationalism” of China, in other words China using the globalization process to benefit its national interest (Suttmeier and Yao 2004, Suttmeier, Yao, and Tan 2006).

However, after an examination of the whole WAPI standardization saga in relation to the life cycle of the WLAN technology, both domestically and internationally, one can see another interpretation for the WAPI case. While WAPI is a case where China has tried to establish a rival standard, it also reveals the limitations of the influence of Chinese economic and regulatory institutions. Winning standardization contests demands a subtle combination of global regulatory influence (e.g. in ISO), firm dominance (e.g. Intel), incremental innovation capability, patent capability (the use of the PCT to build a global patent portfolio), negotiating prowess, and competent regulators who know the tacit rules of the game.

The WAPI case shows that the technology dominance of the US does not rest on a simple incentive model of intellectual property and innovation, but rather on managing the interplay of firms, regulatory and market variables of the kind listed above. China’s technology nationalism is at the beginning of its journey and arguably it has a lot to learn from the US. The struggle for technology independence that was initiated by the Chinese government in the WAPI case is an example of a journey that will probably be repeated by Chinese companies and relevant stakeholders, but perhaps with more success over time.

This section will discuss the role of various actors more closely, in particular, the role of the US in resisting China’s effort to promote a rival standard (Section 5.4.1), as well as the major criticism of the WAPI standards on the basis of compatibility (Section 5.4.2). Section 5.4.3 will discuss what China learned from the WAPI case and how it changed its strategy of engagement.

5.4.1 The US strategy against WAPI

One of the mysteries of the WAPI case was why China agreed with the US to indefinitely suspend implementing WAPI as compulsory national standards. There was a speculation that China used WAPI as a bargaining chip so that the US would agree to release restrictions on defense technology exports to China. But given that China had put standardization as a high priority on its national agenda, it seems likely that it would hesitate to compromise its national interest in standardization. A more plausible hypothesis would be a reciprocal arrangement whereby China agreed to the indefinite domestic suspension while the US agreed to support proposals to turn

WAPI into an international standard. I have proposed this argument in Section 5.3.1 and will elaborate on it here, to reveal a comprehensive strategy by the US to eliminate WAPI.

Evidence for the US' promise can be found in the following address. In 2007, at the groundbreaking ceremony for Intel's manufacturing base in Dalian, one of the north-eastern coastal cities in China, Luo Qanjian, the Vice Minister of MIIT stated that "MIIT would promote Intel's cooperation with Chinese enterprises in areas of computer and next-generation communication. Meanwhile, Intel should support WAPI standards to become international standards to fulfill the US' promise at the 15th JCCT" (Lin 2009). Intel was not mandated to fulfill a promise made by the US government, but the address indicated there was a promise by the US and the promise was that the US would support WAPI to be international standards.

After persuading China to suspend the domestic implementation of WAPI by promising to support its internationalization, the US began its all-around encirclement of the WAPI standards. Domestically, Intel launched its flagship Centrino PCs which tied Wi-Fi to its processor and chipset. With the popularity of Centrino PCs, the Wi-Fi standards soon became *de facto* WLAN standards in the Chinese market. Internationally, IEEE, the national representative for the US at the ISO, blocked WAPI both substantively and procedurally. Substantively, the IEEE argued that WAPI may only become "an optional standard complementing 802.11i", because

-WAPI implementation still optional under China's policy

-IEEE 802 feels the market can decide when to use which security standard

-Compatibility with the rest of 802.11 [is the] most important issue.⁵⁴

The US government first persuaded China to suspend domestic implementation of WAPI as compulsory national standards at the 15th JCCT. Then, the fact that WAPI was optional in China became "evidence" for the IEEE to suggest that WAPI was not suitable for international standards. This strategy, complemented by various procedural irregularities, administrative errors, and the visa denials for Chinese experts to participate in the ISO meetings, saw the IEEE achieve its goal of getting WAPI rejected and 802.11i adopted as a WLAN standard by the ISO.

In addition, the US also delicately shaped public perception of the WAPI standards. The only source found regarding the procedural irregularities (see Table 14) that WAPI underwent is the official website of the CBWIPSG. In English, there was rare media coverage or academic publications on these procedural issues. What was highlighted in the English publications was not the technical issues relating to the standard themselves, but rather the origin of WAPI. The origin was framed as mysterious big government planning. For instance:

⁵⁴ Slide 4, IEEE 802.11-04/1547/ro, see supra note no.36.

Unlike the WAPI process—where the initial technology did not mature in the market but was almost immediately sponsored by the national standardization body—the 802.11 standard was developed over time...Substantial ambiguities surrounded the WAPI program. For instance, the objectives of the national standardization body sponsoring the project was a mystery (DeLacey et al. 2006).

Basically, the logic of this argument is that since WAPI was sponsored by the Chinese national standardization body affiliated to the Chinese government, it must be a bad thing. On the other hand, the China NB's appeals about the improper conduct of the IEEE and clarification of the technical details of WAPI were not treated seriously (Suttmeier, Yao, and Tan 2006).

5.4.2 *Ex ante* standards and the compatibility argument

One of the strongest criticisms of WAPI is that it is not compatible with the existing WLAN standard. The relationship between WAPI and other WLAN standards developed by the IEEE are illustrated in Figure 18. The initial standard Wired Equivalent Privacy (WEP) had security flaws which lead the Wi-Fi Alliance to implement another encryption system Wi-Fi Protected Access (WPA). When the WPA was still not able to guarantee a satisfactory level of security, Wi-Fi Protected Access II (WPA2, IEEE 802.11i) was developed. Technologically, although WPA and WPA2 are not secure enough to survive hacker attack, they are compatible with the other WLAN standards. WAPI developed an encryption algorithm that needs double authentication, so its security level is higher than WPA2 which only requires unilateral authentication. However, the compatibility problem was highlighted by the IEEE at the ISO balloting process.

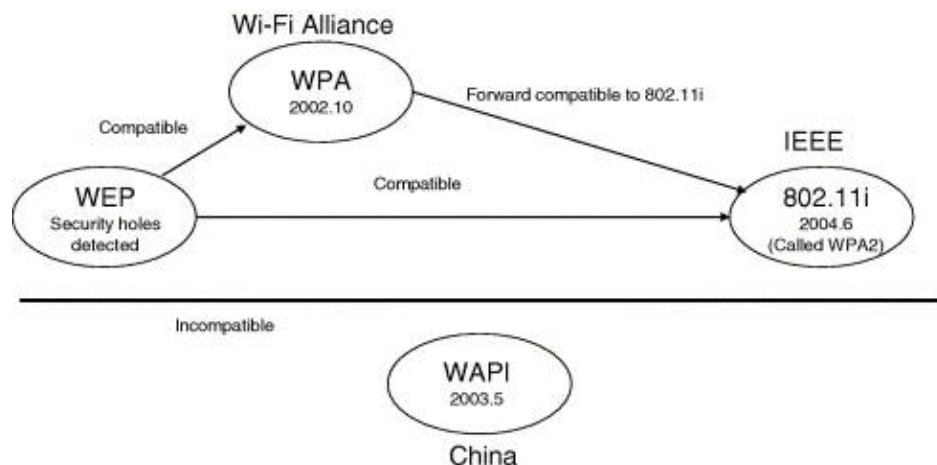


Figure 18 The Relationship between WAPI and Other Protocols⁵⁵

However, this argument exaggerated the need for compatibility before a standard is adopted. Compatibility can only be an *ex post* problem (Farrell et al. 2007) because *ex ante* the market should be open so that candidates for standards status can compete to become the standard. In the

⁵⁵ Data source: Lee and Oh (2006).

case of WAPI, when it was announced as a compulsory national standard, the market size of Wi-Fi was very small. Statistics show that even in 2004, the same year WAPI was suspended indefinitely, there were only 1.29% of US inhabitants and less than 0.72% of UK inhabitants who used Wi-Fi (UNICTTF 2005). Even if IEEE's 802.11 standards had been gradually developed since 1999, they were not yet the standards widely used in the market, even in the US. If the market share of the 802.11 standard was only 1%, there was no real basis on which to block the development of other standards completely. The WLAN market is still in an early stage of standards development. Since the network was not yet established, compatibility was not really the issue. The issue here was an *ex ante* competition (Farrell et al. 2007, 607), a competition for the market.

Intel launched its Centrino PCs integrated to Wi-Fi standards in the potentially huge Chinese market in 2003. If WAPI had been implemented as compulsory national standards, Intel's market would have been lost. Intel lobbied the US government and successfully entered the Chinese market through the US government's intervention in the 15th JCCT. After securing the Chinese market, Intel also led public opinion on the compatibility issue and the immaturity of WAPI. In 2006, Intel's Centrino had more than two-thirds of the Chinese PC market, meaning that Wi-Fi had developed exponentially into a *de facto* standard. Thereafter, the competition was over, and compatibility did become an issue. Then Intel took the position that "it is up to the market to decide which standard is more feasible" (Xin and Wang 2006).

The same logic also applies to the process of international standardization of WLAN standards. When WAPI was first proposed, the WLAN market was not yet established. But as we have seen, the application process for WAPI to become an international standard was deeply flawed and ultimately delayed WAPI to a point where the Chinese withdrew from the process. At the same time, the international market for Wi-Fi was expanding and 802.11i was put into fast-track balloting. In sum, compatibility was an issue after Wi-Fi was established as a *de facto* standard, but not initially.

The debate over compatibility shows how US technology domination flows from a mix of regulatory, negotiating and organizational capabilities. Without these capabilities, an innovative technology will not of its own accord flower into a global standard.

5.4.3 Lessons learned: China embracing inclusive development in the ICT industry

Lee and Oh (2008) compared WAPI and WAPI, a similar WLAN standard ratified in South Korea and concluded that:

Despite some similarities of "aiming for a de jure national standard", "government-initiated" and "anticipatory", the outcomes of the two efforts are different. WAPI was ratified in (South) Korea, while WAPI was indefinitely postponed as the national

standard and failed to be ratified as an international standard.... Different outcomes (of these two standards) are attributed to differences in the openness of the standards and of institutional processes of standardization, combined with the government role and the timing of market entry.

Indeed, the lack of transparency in WAPI and its exclusivity to Chinese entities in drafting the standards were the major reasons for the US to frame WAPI as a thrust of China's neo-technology nationalism (Suttmeier and Yao 2004, Suttmeier, Yao, and Tan 2006). Till 2014, by which time the outcome of the competition between Wi-Fi and WAPI was clear, the US Information Technology Office (USITO) still recommended the US government raise the issue of WAPI at the JCCT because "WAPI are developed outside of international norms in an opaque manner that limits foreign participation" (USITO 2014, 14).

China also realized that WAPI failed because its formulation excluded the vested interests in the industry — MNCs and the US government. China changed its course after the WAPI failure. It began to compromise and took a more inclusive strategy. For instance, China was inclusive in the development of standards in the area of cellular telecommunications network technologies.

The Chinese role in the development of the cellular telecommunications network has been summarized as China was absent in 1G, a follower in 2G, made a breakthrough in 3G, catching up in 4G and will leap forward in 5G. In the late 1990s, China did not have any leading technologies in the 2G cellular network and had to pay significant amounts of patent royalties to the patent holders like Qualcomm. In the development of 3G, China gained access to TD-CDMA technologies from Siemens. This helped Chinese companies to equip themselves with SEPs in cellular communications technologies. The Chinese TD-SCSMA (Li et al. 2005) on the basis of Siemens' TD-CDMA was approved by the International Telecommunications Union (ITU) as one of the three standards for 3G, in parallel with the US standard CDMA2000 and the EU standard WCDMA (Chen 2016a). In this way, China made the breakthrough in 3G technology. In the 4G era, Huawei submitted 546 proposals for the core 4G Long Term Evolution (LTE) standards by the end of 2014, accounting for 25% of the world's total (Huawei 2015).

China also started early in the 5G standardization process. In 2014, MIIT, NDRC and MOST jointly established "IMT-2020" to promote cooperation with MNCs to co-operatively develop 5G technologies.⁵⁶ This inclusive approach was different from WAPI. After experiments in the lab, China Mobile announced that China will have experiments on the application of 5G in five Chinese cities in 2018 and scaled commercialization from 2020 (Sun 2017). The standard of 5G

⁵⁶ Three ministries in China (the Ministry of Industry and Information Technology, the National Development and Reform Commission and the Ministry of Science and Technology) jointly established the IMT-2020 (5G) Promotion Group IMT-2020 推进组 [IMT-2020 tuijinzu] in February 2013. It is the major platform to promote the research of 5G in China.

is not only technology intensive, but capital intensive, which means it can only happen in places big enough to absorb the investment and ensure returns to investors. China Telecom had deployed 5G base stations in six cities in China by the end of 2017 (Zhang 2017b). Though Qualcomm still holds the most SEPs in 5G technology (15% of total) (Jefferies 2017, 5), cooperate with Chinese mobile network operators is of vital importance for its license-based business model.

China also increased its liaison with international ISOs. In the 3rd Generation Partnership Project (3GPP)⁵⁷ in the latest election in 2017, China's representatives occupied ten of the 57 positions.

5.5 Conclusion

Though the Chinese patent office has been the largest in the world for years, running patent numbers is not enough. China needs quality patents to be part of international standards, but the processes of standardization *per se* are not easy. If we compare this case with the case of China's international engagement in GIs and the disclosure obligation, China's intention to engage in international standardization was clearer and stronger. This is mainly because standards are crucial to China's core interest. The DVD case showed standards are the lifeline of an industry and allow firms to occupy the high-end of the smiling curve. However, for the same reason, standards are crucial for every state, in particular for the US to maintain its competitive advantage. Such strategic importance underpins each attempt China has made in promoting WAPI as both national and international standard. This strategic importance also underpins each counteraction the US undertook to promote its own Wi-Fi standards. Chinese companies have climbed up the PCT patent ladder, but they were still defeated in the battle over WAPI through a combination of US' non-compliance in the JCCT commitment, various procedural irregularities, administrative errors and the visa denials.

To make a standard come alive globally, a newcomer not only needs a complementary set of institutional, organizational, and negotiating skills but also to compromise its national interests to guarantee the standard is inclusive and open. With China growing as the world largest market for telecommunications and the Internet, China did gain a certain leverage from its huge market size. MNCs in the Chinese market must comply with Chinese laws and regulations and court decisions to continue operating in the market — a market that they cannot afford to lose. As shown by IWNComm vs Sony, Chinese companies and courts have been involved in law implementation and used market leverage to convert outcomes in the implementation game.

⁵⁷ 3GPP is an international SSO setting cellular telecommunications standards. It unites 7 telecommunications standard development organizations as organizational partners, including ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC.

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Chapter 6 China's Bilateral IP Engagement: Intellectual Property in Chinese FTAs

6.1 Introduction

6.1.1 The Chinese free trade agreement strategy in the changing world

China started signing free trade agreements (FTAs) with other countries in 2003. In more than a decade, China has signed 14 FTAs with 22 trading partners, with another seven FTAs under negotiation (Table 15).¹ China first started its experiment with FTAs with small developing countries such as Chile and Costa Rica. In recent years, China also signed FTAs with developed countries like Iceland, Switzerland, and Australia.

Table 15 Intellectual Property Provisions in Chinese FTAs

FTAs already signed (14)	
FTAs with IP Provisions (eight) China-Chile FTA (2005) China-New Zealand FTA (2008) China-Peru FTA (2009) China-Costa Rica FTA (2010) China-Iceland FTA (2014) China-Switzerland FTA (2013) China-South Korea FTA (2014) China-Australia FTA (2014)	FTAs without IP Provisions (six) China-ASEAN FTA China-Pakistan FTA China-Singapore FTA (2008) Mainland and Hong Kong Closer Economic and Partnership Arrangement Mainland and Macau Closer Economic and Partnership Arrangement China-ASEAN FTA Upgrade (2015)
FTAs under negotiation (seven) China-Georgia FTA China-GCC (Gulf Cooperation Council) FTA China-Norway FTA China-Japan-South Korea FTA Regional Comprehensive Economic Partnership (RCEP) China-Sri Lanka FTA China-Maldives FTA	
FTAs under consideration China-India Regional Trade Arrangement Joint Feasibility Study China-Columbia FTA Joint Feasibility Study China-Moldova FTA Joint Feasibility Study China-Fiji FTA Joint Feasibility Study China-Nepal FTA Joint Feasibility Study	

¹ For the text of the Chinese FTAs, refer to the Ministry of Commerce (MOFCOM) website of China FTA Framework <http://fta.mofcom.gov.cn/english/>. This table was update in March, 2017.

Chinese FTA partners are not major trading partners for China, but in most cases, China is the major trading partner for its FTA partner. Looking at the economic structure, China and these countries are complementary rather than competitive. The small size and non-competitor status of China's FTA partners have facilitated the negotiation of these FTAs (Li 2013).

China incorporated the acceleration of FTA negotiation and implementation as a national strategy in the 17th National Congress of CCP (Xinhua News Agency 2007). The political will to promote Chinese FTAs was reinforced in 2015 by the *State Council Opinions on Accelerating the Implementation of the FTA Strategy* (FTA Strategy 2015).² The FTA strategy (2015) deploys objectives to facilitate trade liberalization through FTAs at three levels: neighboring countries, countries along the Belt and Road Initiative (BRI),³ and a global network of FTAs.

The short-term objective for Chinese FTAs is to speed up the ongoing FTA negotiations, further liberalize the existing FTAs, and promote negotiations with neighboring countries and regions. By doing this, China's trading values with FTA partners should reach or exceed the level of most developed countries and emerging economies. The mid-to-long term objectives are to create a global network of FTAs including neighboring countries and regions, countries along the path of the "Belt and Road Initiative" and priority countries in all five Continents, to liberalize and facilitate transnational trade for Chinese enterprises and bilateral investment (FTA Strategy 2015).

In addition to promoting domestic development as articulated in the FTA Strategy 2015, there is a strategic geopolitical interpretation of China's FTA strategy which is that the Chinese FTAs are considered a counter-balancing strategy to the US' pivot to Asia through the Trans-Pacific Partnership (TPP) (Song and Yuan 2012). Wang (2016b) applied the same logic to the BRI, arguing that the seemingly proactive initiative is defensive in nature.

The recent black swan events, including the Brexit referendum and the US's withdrawal from the TPP, suggest an undercurrent of backlash to globalization. Trump's success in the US presidential election may signal the end of the US model of globalization because of his preference for bilateralism (Stokes and Waterman 2017). One viewpoint is that the anti-globalization trend may lead the world back to economic nationalism instead of liberalism.

² State Council 国务院 [Guowuyuan], Several Opinions of the State Council on Accelerating the Implementation of the Strategies for Free Trade Areas 国务院关于加强实施自由贸易区战略的若干意见 [Guowuyuan Guanyu Jiakuai Shishi Ziyoumaoqiye Zhanlue de Ruogan Yijian] 2015 No. 69 国发(2015) 69 号 [Guofa (2015) 69 hao]. In this chapter, national laws and regulations refer to Chinese laws and regulations if not articulated otherwise.

³ The Belt and Road Initiative 一带一路 [yidai yilu] (BRI) was initiated in 2013. For a detailed discussion of its objectives and measures, see Huang (2016). The IP arrangement in the BRI will be discussed in Chapter 7.5.4

In response to these changes in the global political economy, many countries have also changed their strategy by showing confidence in “China-led trade pacts” as a way of gaining momentum for globalization, especially the Regional Comprehensive Economic Partnership (RCEP) and Free Trade Area of the Asia-Pacific (FTAAP). However, Geng Shuang, the Chinese Foreign Affairs spokesperson has made it clear that China would not take a leadership role in either trade pact (CMFA 2016). President Xi Jinping’s opening address at the World Economic Forum in Davos declared China’s position in response to these changes — China will keep its door wide open and call for the international community to take steps to fix the current problems affecting free trade and economic globalization, rather than backing away from it entirely (Anderlini, Wang, and Mitchell 2017). Both speeches suggest China’s position in response to the recent changes has begun to consolidate. On the one hand, Mr. Geng’s emphasis on the non-dominance of China in both the RCEP and FTAAP indicates its effort to avoid being referred to as “a regional hegemon” in trade issues. On the other hand, President Xi’s Davos speech defended free trade and a liberal international economic order. In this context, China has defended the WTO as the primary multilateral trade forum and accelerated its FTAs negotiation to defend the international order of free trade.

Against the above background, China’s bilateral engagement may not be isolated from its position in the multilateral IP regimes (in particular TRIPS). Through the investigation of the intellectual property provisions in Chinese FTAs, this chapter will examine China’s bilateral IP engagement with a focus on the Chinese FTA and TRIPS relationship.

Before investigating the FTA-TRIPS relationship in the Chinese context, Section 6.1.2 will review how the developed countries have strategically used FTAs as a global intellectual property ratchet. Section 6.1.3 will propose hypotheses of possible positions on intellectual property that China may take in its FTAs in relation to TRIPS. Section 6.1.4 will introduce the Chinese FTAs. Sections 6.2-6.4 test these hypotheses one by one.

6.1.2 The US style FTAs: Nodes for global IP ratchet and its resistance

Bilateral agreements including FTAs, bilateral investment agreements, and bilateral intellectual property agreements, have long been used as an instrument by developed countries to push for more extensive IP protection. The unequal agreements introducing the IP system to China in the early 20th Century were all negotiated bilaterally (Wang 2008). The US and EU started incorporating IP in their bilateral agreements at the beginning of the 1980s. During TRIPS negotiations, the US promised the developing countries that it would end bilateralism in intellectual property if they accepted TRIPS (Draho 2002a). However, the US started a new round of the global intellectual property ratchet through FTAs as soon as TRIPS was concluded (Draho 2001a). The high standards for intellectual property gained in the post-TRIPS era,

especially data exclusivity and more restrictive enforcement of copyright in cyberspace, have been consolidated in ACTA and TPP. Although ACTA and TPP failed respectively after the veto by the EU parliament and the result of the recent US presidential election, the final texts of both agreements clearly demonstrate how the US has pushed global intellectual property upwards (Sell 2010a).

In the post-TRIPS era, FTAs became a more effective instrument for the US to extend the IP protection standards because of the most-favored-nation (MFN) principle in TRIPS. Before TRIPS, the gains in IP for the US bilateral FTAs were confined to the US. According to Article 4 of TRIPS, any advantage, favor, privilege or immunity in intellectual property stipulated in one FTA will not be limited bilaterally between the negotiating parties, but available immediately and unconditionally to all other WTO Members.⁴ As a result, FTAs become a critical node in the US strategy to push up global intellectual property standards.

Nonetheless, the global intellectual property ratchet has not been all smooth sailing after TRIPS. It has encountered protests from both state and non-state actors. During TRIPS negotiations, the asymmetry of power limited the capacity of developing countries to influence the outcomes of TRIPS. After TRIPS, developing countries opposed any TRIPS-plus standards because they had already made great concessions in the TRIPS negotiations. In addition to firmly adhering to TRIPS standards, developing countries actively promoted the *Development Agenda* at WIPO. Developing countries also employed the strategy of forum-shifting, promoting IP standards at the CBD and the World Health Organization (WHO) on genetic resources, access to medicine, and human rights, thereby contesting the dominance of the 'traditional' multilateral IP regimes. These practices unfolded a possible alternative framework for standard-setting for valuable intangibles not originally included in TRIPS (Kapczynski 2007).

With the promotion and protestation in international IP rule-making by both developed countries and developing countries in fora at various levels, the international IP system presents a high level of rule-complexity. The vertical forum-shifting further introduced legal fragmentation and rule ambiguity into the international IP system. More uncertainty into the international IP rule-complexity has been introduced through the political will of great powers and by security concerns. The case of TPP being abandoned by the Trump administration exemplifies the influence of political will. Security concerns were manifested by the China-South Korea-Japan FTA, for which the changing security situation in North-East Asia functions as a check on the progress of its negotiation. Specifically, the Diaoyu Island dispute between China and Japan and

⁴ The MFN principle of TRIPS works in an unequal way because, as opposed to GATT and GATS, there is no exception to the TRIPS MFN principle (Drahoš 2001a, Frankel 2008).

the US deployment of the anti-missile system, Terminal High Altitude Area Defense (THAAD), in South Korea significantly disturbed the negotiations.

The EU has also aimed for TRIPS-plus rules in its FTAs. How the US and the EU used FTAs as a node to promote TRIPS-plus IP standards globally provides a base from which to build the categorization of a Chinese position in intellectual property in its FTAs.

6.1.3 Categories of Chinese IP positions in its FTAs

The starting point for analyzing intellectual property provisions in Chinese FTAs is that China is a developing country with rapid growth. Primarily, China is still a developing country. As revealed in Chapter 2, the introduction of intellectual property to contemporary China is a result of external pressure, especially by the US, that has led to a process of legal transplants. After its accession to the WTO, China revised its domestic intellectual property laws to comply with the TRIPS standards. Both processes took place when China was still a developing country that had just embarked on market-based industrialization and was dependent on technology importation. Therefore, the hypothesis for the Chinese intellectual property position in its FTAs – based on the fact that China is still a developing country – is that China will try to safeguard the current TRIPS standards.

However, this assumption concerning its preferences is time-bounded, especially considering the rapid Chinese economic transition and its increasing innovative capacity. There are two inferences from the time-boundedness. First, China may actively promote alternative IP standards in its FTAs – different standards compared to those the US has sought to ratchet up. Secondly, China may accept some TRIPS-plus standards, using them as a bargaining chip with developed countries while expecting these standards to be compatible with its own innovation capacity in the near future. Such an argument has justified Chinese acceptance of TRIPS standards in early 2000. Professor Wu Handong, a celebrated Chinese IP law professor, has argued that “intellectual property is a momentum to boost the national economy and social development for traditional developing countries, so that these countries can embark on the avenue of industrialization and modernization as well as take initiatives in international competition” (Wu 2009, 56). He further emphasized that “strengthening IP protection and effectively using the IP system is a strategic choice for China to achieve leapfrog development and a supportive instrument to realize the target of building China as an innovative country”. Following the second inference, though defending TRIPS in its FTAs reflects Chinese interests at the current stage, China may occasionally accept or associate the creation of certain IP standards beyond current development with the expectation that it will catch up in future.

To test the relationship between Chinese FTAs and TRIPS, this Chapter categorizes the relationship between the eight Chinese FTAs with intellectual property provisions (see Table 15 above)⁵ and TRIPS into four groups:

- (1) passive defensive — FTAs that do not explicitly mention intellectual property;
- (2) active defensive — FTAs that explicitly refer to TRIPS or repeat specific TRIPS provisions in its text;
- (3) TRIPS-plus — FTAs that provide more extensive protection than TRIPS or eliminating options available in TRIPS; and
- (4) active promotion — FTAs that regulates issues not mentioned in TRIPS.

Table 16 divides the specific provisions of Chinese FTAs into the four categories⁶.

⁵ Considering that recent Chinese FTAs tend to provide more detailed provisions, some FTAs have divergent positions on different issues. On these occasions, the categorization is made by reference to the FTA's rules on a specific issue.

⁶ In this table, "AD" represents active defensive, "AP" represents active promotion, "PD" represents passive defensive and "TP" represents TRIPS-plus.

	China- Chile FTA	China-New Zealand FTA	China- Peru FTA	China-Costa Rica FTA	China- Iceland FTA	China- Switzerland FTA	China- South Korea FTA	China-Australia FTA
Issues included in TRIPS	Adhere to TRIPS as a principle	AD	AD	AD	AD	AD	AD	AD
	The balance of interest and preventing abuse of intellectual property	AD	AD	AD	AD	AD	AD	AD
	The exception to national treatment						AD	AD
	Geographical indications	AP		AP		AP	AD	AD
	Border measures	AD	AD	AD		TP	TP	AD
	Patentability					AD	AD	AD
	Protection of undisclosed information						AD	AD
	Data exclusivity for biologics					TP		AD
	Protection of industrial designs					AD and TP	AD and TP	
	"Visually perceptible" as trademark registration requirement						TP	TP
	Protection of certification and collective marks							TP
	Well-known trademark						AD	AD
	Protection of prior rights in trademark registration						AD	
	Acquisition of the intellectual property right					AD		
	Opportunity for opposition							AD
Issues that TRIPS does not mention	Provisional measures					AD	AD	
	Civil remedies					TP	TP	
	Criminal enforcement					AD	AD	
	Protect genetic resources and traditional knowledge		AP	AP	AP	AP	AP	AP
	Public health	AP		AP	AP	AP	AP	AP
	Incentives to enterprises for innovation				AP			
	Contact point/IP Committee		AP				AP	
	Information exchange/capacity building	AP	AP		AP		AP	
	Consultations before disputes		AP		AP			
	Limit the Internet Service Provider (ISP) Liability							AP
	Exhaustion of rights							AP
	Transparency on the intellectual property granting procedure							AP or TP
	Collective management of copyright						TP	
	ISP liability						AP	
	Publish judicial judgment and administrative adjudications						TP	
Issues that TRIPS does not mention	List of international treaties				AD	AD	AD	
	WPPT WCT on copyright protection					AD	AD	
	Protection of new plant varieties					AD	AD	AD

Table 16 Intellectual Property in Chinese FTAs: A Comparison with TRIPS

Among the four categories, both passive defensive and active defensive FTAs are FTAs that try to maintain the current IP standards in TRIPS. Further clarification is needed to distinguish TRIPS-plus and active promotion. TRIPS-plus standard-setting in FTAs refers to two situations: (1) requiring more extensive protection than TRIPS and (2) eliminating an option for a Member conferred by TRIPS (Draho 2001a). A typical example of the latter is that TRIPS offers a Member an option to decide whether ‘visually perceptible’ could be used as a requirement for trademark registration. The China-South Korea FTA provides that ‘visually perceptible’ cannot be used as a requirement for trademark registration. With the reduction of this trademark registration requirement, the scope of trademark protection has been extended – distinctive sounds and smells can be registered as trademarks. However, if an FTA confirms an IP standard that has already been mentioned in multilateral IP treaties other than TRIPS, they are not considered as TRIPS-plus for the purpose of this chapter but analyzed separately. For instance, the protection of new plant varieties is provided in the China-Switzerland and China-South Korea FTAs. Considering China is a Member of the UPOV 1978, these provisions, though conferring more extensive protection than TRIPS, are not regarded as TRIPS-plus. In addition, international rule-making on the overlaps between intellectual property and other issues are not TRIPS-plus. Using the classifications such as “TRIPS, TRIPS-minus, and TRIPS-plus” may not always gauge the complex relationship between TRIPS and other multilateral IP agreements.

Active promotion refers to the effort of alternative rule-making – rules that set standards in areas that TRIPS has not touched. For instance, the disclosure obligation relating to genetic resources in the patent applications in FTAs belongs to the active promotion category. Developing countries are major promoters of these rules. Actively promoted rules manifest the true interest of the FTA parties promoting them because they are not compelled by some prior treaty obligation to set a standard or set it at a particular level.

The legal effects of the four categories of rules are different. In passive defensive and active defensive FTAs, TRIPS will still apply. The TRIPS-plus FTA will invoke the application of the MFN principle, which means the advantage, favor, privilege or immunity agreed by both parties will be accorded immediately and unconditionally to other WTO Members. Within active promotion FTAs, the provisions actively promoted will bind both parties signing the FTA. Whether the active promotion FTAs will trigger the application of the MFN depends on the subject matter – if the active promotion FTAs regulate a subject matter that relates to intellectual property as defined in Article 1.2 of TRIPS, MFN will apply.

TRIPS-plus provisions in Chinese FTAs do not necessarily introduce additional international obligations for China. On the issue of additional international obligations, FTA standards are compared with Chinese domestic IP laws, not TRIPS. Recently amended Chinese IP laws have introduced some TRIPS-plus standards. As long as an FTA does not exceed IP standards to be

found in national legislation, it will not introduce an additional obligation via the FTA into its domestic legal system. Take, for example, the abolishment of “visually perceptible” as a trademark registration requirement. Although the provision itself is TRIPS-plus because it eliminates an option otherwise available to WTO Members, it does not introduce an additional international obligation for China since the amended *Trademark Law* (2013) has already abolished such a requirement.

Recent Chinese FTAs tend to refer to provisions of other multilateral treaties as well. TRIPS is not the only multilateral forum for IP rule-making. The analysis of the relationship between Chinese FTAs and other multilateral IP agreements presents a more nuanced picture of China’s position. In the case of anti-circumvention of technological protection measures, it seems China has accepted a TRIPS-plus standard in the China-South Korea FTA, but China is obliged by the WIPO Internet Treaties to set such TRIPS-plus standards. In other words, TRIPS-plus anti-circumvention provisions are in place to comply with the WIPO Internet Treaties. In this Chapter, such active defensive FTAs that relate to other multilateral IP agreements are carved out from the TRIPS-plus category.

The analysis of this chapter is limited in the following aspects. First, this chapter focuses on IP provisions/chapters in Chinese FTAs. A comprehensive study of Chinese FTAs and their geopolitical impact is beyond the scope of this chapter. Secondly, this chapter uses a text-based analysis of Chinese FTAs. An account of the negotiation procedure of these FTAs is beyond its scope because the data was not accessible. Therefore, the subject for analysis in this chapter is mainly FTA provisions, not the intention of the parties. The position of an FTA party will be analyzed when data is available. I recognize that this approach to some extent limits the revealing of a clear Chinese IP position in its FTAs.

6.1.4 Overview of IP provisions in Chinese FTAs

Intellectual property was not mentioned in the first few Chinese FTAs with Association of Southeast Asian Nations (ASEAN), Pakistan and Singapore, or the internal market coordination agreements with Hong Kong and Macau. Intellectual property first appeared in the China-Chile FTA as one article in the chapter on cooperation. The China-Peru FTA and China-Costa Rica FTA are similar to the China-Chile FTA, focusing on the common interests of developing countries such as public health, and protection of genetic resources and traditional knowledge and cooperation, not introducing any TRIPS-plus obligations.⁷

⁷ One exception for this general observation is the border measures in the China-Peru FTA. For detail, see Section 6.4.4.

The China-New Zealand FTA was the first comprehensive FTA that covers trade in goods and services and investment, and the first FTA that China signed with a developed country. An independent chapter is devoted to intellectual property, with provisions on issues such as intellectual property principles, contact points, notification and exchange of information, cooperation and capacity building, genetic resources, traditional knowledge and folklore, and consultation. Much of the content is procedural. Like the China-Chile FTA, this FTA did not create any TRIPS-plus obligations.

In 2005, Iceland became the first European country recognizing the market economy status of China. Both countries started an FTA feasibility study in 2007. However, the negotiations lasted for eight years. In its IP chapter, this FTA confirms the principle of adhering to TRIPS and the balance of interest. It also lists other multilateral IP agreements that both countries have joined. Unlike earlier FTAs with developing countries which actively promote the protection of GIs, genetic resources, and traditional knowledge, this FTA does not involve any of these issues. Also differing from other FTAs with developed countries, this FTA does not include any substantive provisions either confirming TRIPS standards or promoting TRIPS-plus provisions.

China and Switzerland started an FTA negotiation in 2011 and concluded the negotiation three years later. The China-Switzerland FTA sets high standards for intellectual property, especially the data exclusivity for biologics. With 22 articles in 12 pages, the IP Chapter in the China-Switzerland FTA is among the longest in Chinese FTAs. Although the Switzerland FTAs are usually negotiated together with Norway, Iceland, and Liechtenstein, in the framework of the European Free Trade Association (EFTA) (SECO 2018), the China-Switzerland FTA is outside of the framework.

China and Australia started FTA negotiations in 2005, and the marathon-like negotiations lasted for ten years. Nonetheless, the IP chapter is not the controversial part of this FTA (Weatherall 2015). Like the China-Switzerland FTA, the IP chapter in the China-Australia FTA tends to go into detail by either repeating TRIPS standards or creating TRIPS-plus standards occasionally.

South Korea, as the 11th largest economy in the world,⁸ is the largest FTA partner for China. The China-South Korea FTA, signed in 2015, includes the most detailed IP chapter among all Chinese FTAs. Like the Chinese FTAs with Switzerland and Australia, the China-South Korea FTA includes extensive provisions referring to other multilateral intellectual property treaties. It also includes the largest number of TRIPS-plus standards among all Chinese FTAs (Section 6.4).

⁸This is based on the World Bank statistics on GDP in 2016. See <http://databank.worldbank.org/data/download/GDP.pdf>.

6.2 Chinese FTAs defending TRIPS standards

6.2.1 Passive defensive Chinese FTAs

Out of the 14 Chinese FTAs, the six FTAs that do not mention intellectual property at all can be categorized as passive defensive FTAs based on the definition in Section 6.1.3. These FTAs include the Chinese FTA with ASEAN countries and its upgrade, Pakistan, and Singapore, and China's closer economic arrangement with Hong Kong and Macau. Most of the ASEAN countries and Pakistan are developing countries, and the main purpose of these FTAs is to promote exports and imports through eliminating tariff barriers. Thus, not including intellectual property makes sense in these FTAs. Singapore is a developed country. The reason for excluding intellectual property might be that neither party wanted intellectual property to be a deal-breaker. After all, the market size of China is much larger than that of Singapore. For Singapore, with the priority of entering the Chinese market, the issue of intellectual property was likely to be something on which it could compromise. The Hong Kong and Macau FTAs are in essence internal market coordination, so the central government of China takes the initiative in these FTAs.

All the Chinese FTAs passively defending TRIPS were negotiated at the beginning of the 21st century (Figure 19), just after China's accession to the WTO. The amendment of Chinese IP laws has been criticised because the amended IP laws set standards higher than China at that stage of development needed (Wei 1997). Therefore, adhering to TRIPS standards was the negotiating priority for China in its early FTAs. The outcome of these FTAs – not mentioning intellectual property at all – clearly reflected such considerations. In addition to these six FTAs, every other FTA is passive defensive of TRIPS on specific issues if this issue is provided for in TRIPS, but not mentioned in these FTAs.

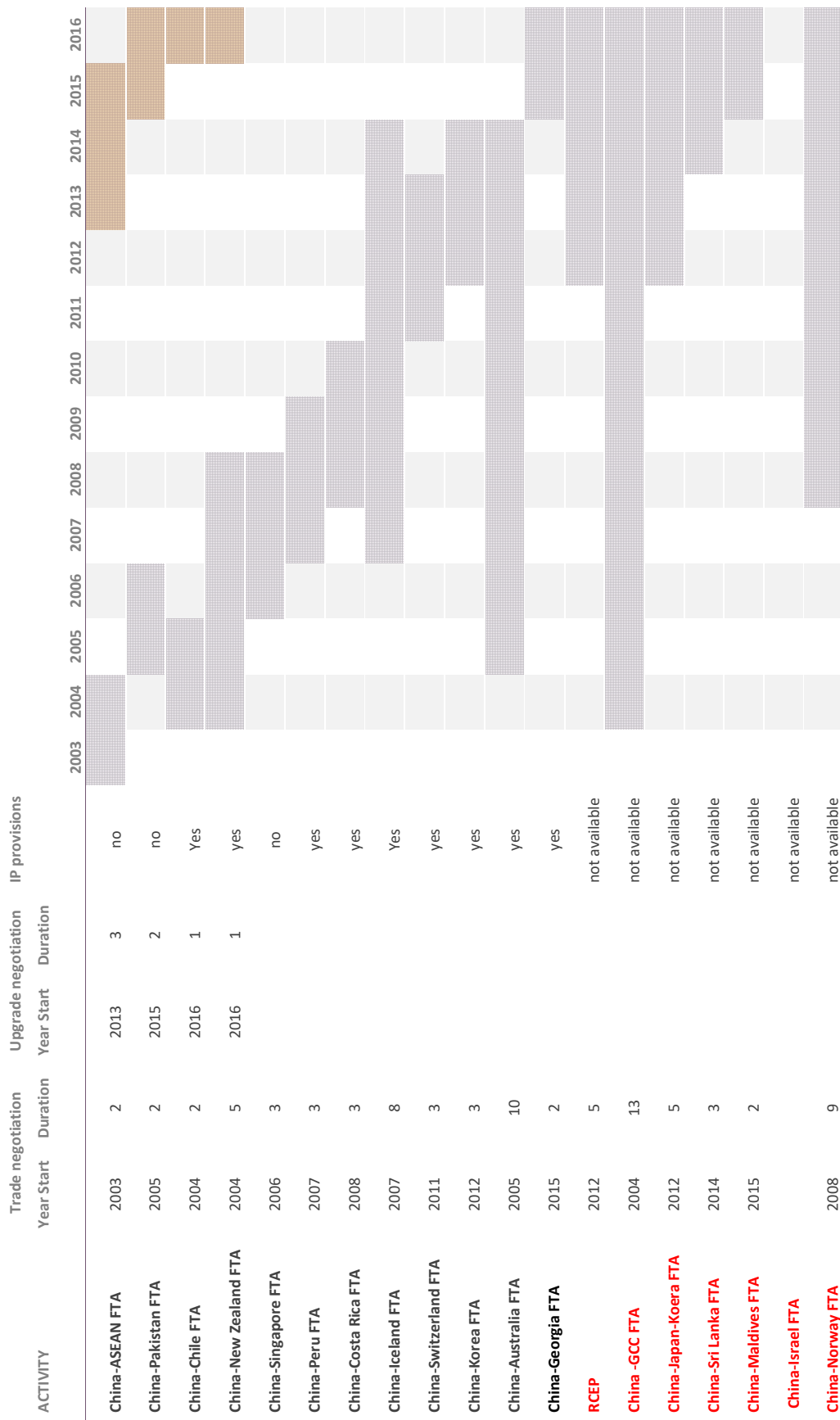


Figure 19 Negotiating Progress of Chinese FTAs and Their Inclusion of Intellectual Property

6.2.2 Active defensive Chinese FTAs

Except for the six passive defensive FTAs already discussed, eight FTAs which include IP provisions can be further divided into three categories: active defensive, active promotion, and TRIPS-plus. However, this time, it is hard to split an entire FTA into one category because one FTA may include provisions that can embody all three categories. For instance, the China-Switzerland FTA contains provisions reiterating TRIPS on border measures (active defensive), on intellectual property and public health, and protection of genetic resources and traditional knowledge (active promotion), and six-year data exclusivity for biologics (TRIPS-plus). Therefore, for these three categories, the subject of analysis is not an entire FTA but a bundle of rules within one FTA on a specific issue.

This section will focus on the active defensive provisions in these FTAs. In general, there is a trend that the active defensive provisions dramatically increased in the China-Switzerland, China-South Korea, and China-Australia FTAs. Specifically, Chinese FTAs have made explicit reiterations of the TRIPS standard on the following issues:

- The principle of adhering to TRIPS standards. It appears as a basic principle in all eight Chinese FTAs explicitly mentioning intellectual property.
- The possible exceptions to National Treatment in TRIPS appears in the China-Australia FTA.
- The requirement for patentability, in which the TRIPS requirement of Article 27 is reiterated in the China-Switzerland FTA and China-South Korea FTA.
- The protection of well-known trademarks in the China-South Korea FTA and China-Australia FTA. Both provisions further referred to relevant provisions of the Paris Convention. Considering the Paris Convention has been incorporated into TRIPS, these provisions are still active defensive of TRIPS, not other multilateral IP agreements.
- Provisional measures and criminal enforcement are both repeated in the China-Switzerland FTA and China-South Korea FTA.⁹
- Protection of prior rights, acquisition of intellectual property and opportunity to submit oppositions are reiterated in the China-South Korea FTA, China-Switzerland FTA, and China-Australia FTA respectively.
- As for border measures, the China-Peru FTA, China Costa-Rica FTA, and China-Australia FTA contain provisions actively defending the TRIPS standards. In the China-

⁹ This conclusion is made on the basis of comparing the border measure provisions in these two FTAs with relevant TRIPS provisions. See for instance, the similarity in (1) Article 11.20.1 of the China-Switzerland FTA and Article 50 of TRIPS, (2) Article 11.20.2 of the China-Switzerland FTA and Article 44 of TRIPS, and (3) Article 11.21 of the China-Switzerland FTA and Article 61 of TRIPS.

Switzerland FTA and China-South Korea FTA, TRIPS-plus standards are provided on this issue.

- In the protection of undisclosed information, TRIPS provisions are reiterated in the China-South Korea FTA as well as the China-Australia FTA.

In addition to reiterating TRIPS provisions, Chinese FTAs also reiterate the outcome of the border measures dispute at the WTO.¹⁰ For instance, the China-South Korea FTA provides that “simple removal of the trademark unlawfully affixed shall not be sufficient, other than in exceptional cases, to permit the release of goods into the channels of commerce.”¹¹ This provision first appeared in Article 46 TRIPS, and Chinese border measures were found inconsistent with this article by the WTO DSB. China amended its *Regulation on the Customs IP Protection* by incorporating this sentence to fully comply with the TRIPS standards.¹² The same provision was replicated again in the China-South Korea FTA. This example shows that active defensive rules extend to the defense of even the content of the panel report that clarified TRIPS provisions.

The specific rules mentioned above will not be elaborated on in this chapter as active defensive FTAs only reiterate TRIPS standards. I will focus instead on the effects of the active defensive provisions. Although active defensive provisions do not introduce additional international obligations for China, their effects vary with the type of rules such provisions defend.

Some active defensive rules in Chinese FTAs are intended to maintain the minimum standards of TRIPS and to prevent derogation from them. Most of the active defensive rules in the three recent FTAs with Switzerland, South Korea, and Australia fall into this group. These rules are directly actionable, and they are likely to be implemented by state laws. They may further feedback into the interpretation of TRIPS and WTO dispute resolution when the DSB investigates state practice in interpreting TRIPS.

Another group of active defensive rules in Chinese FTAs repeat the flexibilities of TRIPS, including the basic principles of TRIPS and some specific rules. The principle of balance of interest (Article 7 TRIPS) and preventing abuse of intellectual property rights (Article 8 TRIPS) appear in all Chinese FTAs that have intellectual property provisions. For the principle of balance of interest, Chinese FTAs reiterate the interests at stake, namely that the IP system should “achieve a balance between rights of right holders and the legitimate interests of users and the

¹⁰ DS362: China — Measures Affecting the Protection and Enforcement of Intellectual Property Rights.

¹¹ Article 15.24.6.3 China-South Korea FTA.

¹² The Decision of the State Council on Amending the Regulation on the Customs Protection of Intellectual Property Rights 国务院关于修改〈中华人民共和国知识产权海关保护条例〉的决定 [Guowuyuan Guanyu Xiugai Zhonghua Renmin Gongheguo Zhishichanquan Haiguan Baohu Tiaoli de Jueding] amended Article 27.3 of the Regulation on the Customs Protection of Intellectual Property Rights 中华人民共和国知识产权海关保护条例 [Zhonghua Renmin Gongheguo Zhishichanquan Haiguan Baohu Tiaoli] to make the latter comply with the TRIPS standard on border measures.

community with regard to protected subject matter”.¹³ The reiteration manifests the different expectations China has for FTAs in IP regulation, compared with the US and EU’s desire for increasing the strength of IP standards (See Section 6.1.2). This principle helps to resist the commodification-based or even assetization-based rationale (Dreyfuss and Frankel 2014) developed by the recent US and EU FTAs. By emphasizing the function of intellectual property to promote innovation and to facilitate technology dissemination, this principle also enables Chinese FTAs to actively promote standards concerning the balance between intellectual property and public health, and the disclosure obligation of genetic resources in patent applications. In the case of the principle of preventing abuse of intellectual property,¹⁴ the reiteration has practical significance for China. The recent judicial activism emerging from local courts and other anti-monopoly law agencies indicates the robust implementation of anti-monopoly regulations in China to prevent the abuse of intellectual property (chapter 5.2.3). Reiterating the principle of preventing IP abuse not only helps to justify the above domestic anti-monopoly practice but also sets a foundation for China to further export potential anti-monopoly norms ‘with Chinese characteristics’ to its FTA partners in the future.

Another example of this group of rules are provisions replicating the exception of national treatment. For instance, Article 11.5.3 of the China-Australia FTA echoes Article 3.2 TRIPS. This article confirms a flexibility that WTO Members have to exempt national treatment in two cases – one is requiring a national of the other Party to designate an address for service in its territory, and the other is requiring the appointment of an agent in its territory in administrative or judicial procedures. This provision is preferable for China because it is a justification for some practices in China.¹⁵

Some IP issues in early FTAs were regulated by an active defensive provision but later regulated by a TRIPS-plus provision in other FTAs. Regarding border measures, the China-Chile, China-Peru and China-Costa Rica FTAs include active defensive provisions. The China-South Korea FTA includes TRIPS-plus standards, both in the scope of the inspection and the types of

¹³ See Article 110.1 of the China-Chile FTA, Article 160.2 of the China-New Zealand FTA, Article 144.2 of the China-Peru FTA, Article 109.2 of the China-Costa Rica FTA, Article 63.1 of the China-Iceland FTA, Article 11.1.4 of the China-Switzerland FTA, Article 15.1.2 of the China-South Korea FTA, and Article 11.1.4 of the China-Australia FTA.

¹⁴ See Article 110.5 of the China-Chile FTA, Article 144.4 of the China-Peru FTA, Article 110.3 of the China-Costa Rica FTA, Article 11.1.5 of the China-Switzerland FTA, Article 15.2.3 of the China-South Korea FTA, and Article 11.1.6 of the China-Australia FTA.

¹⁵ For instance, Article 12.1 of the *Internet Domain Name Regulations* 互联网域名管理办法 [*Hulianwang Yuming Guanli Banfa*] (2004) provides that to register a domain name in China, the applicant should set up top-level domain name server (exclude mirror server) within the territory of China. This requirement is further specified in the amended *Internet Domain Name Regulations* 互联网域名管理办法 [*Hulianwang Yuming Guanli Banfa*] (2017).

intellectual property to be protected (See Section 6.4.4). In these cases, the TRIPS-plus standard automatically overturns the active defensive provision because of MFN treatment.

6.3 Active promotion of intellectual property in Chinese FTAs

As clarified in the definition, active promotion means both parties are committed to promoting a standard not mentioned in TRIPS. Active promotion provisions are often voluntary soft rules, and non-compliance does not have legal consequences. Active promotion provisions are a valuable lens, enabling one to see the genuine interest of the parties because they are not obliged to include these provisions. This section explores active promotion rules in Chinese FTAs on the following issues: (1) protection of genetic resources and traditional knowledge, (2) intellectual property and public health, (3) mutual recognition of GIs, (4) limit to ISP liabilities. Active promotions in cooperation and procedure will also be discussed.

6.3.1 Protection of genetic resources and traditional knowledge

The protection of genetic resources and traditional knowledge is not explicitly mentioned in TRIPS. After TRIPS, developing countries argued for the inclusion of the disclosure obligation in post-TRIPS negotiations to guarantee that TRIPS provisions are conducive to achieve one of the CBD's objectives – fair and equitable sharing of benefits arising out of the use of genetic resources.¹⁶ However, though the *Nagoya Protocol* has established the access and benefit sharing (ABS) mechanism, the disclosure obligation, the necessary complementary mechanism in the patent system, was not incorporated in the final text of the *Nagoya Protocol* (see Chapter 4). China, as one of the mega-biodiverse countries in the world, has incorporated the disclosure obligation in its patent law.¹⁷ In this context, China has endeavored to incorporate the protection of genetic resources in its FTAs.

So far, China has actively promoted the protection of genetic resources in its FTAs with six countries, including New Zealand, Peru, Costa Rica, Switzerland, South Korea and Australia. Among these six FTA partners, Peru and Costa Rica are developing countries, and both have domestic legislation in place on the disclosure obligation.¹⁸ Australia, South Korea, and Costa Rica have signed the *Nagoya Protocol* while Peru and Switzerland have already ratified it.¹⁹ These mutual interests constitute the basis upon which to include protection of genetic resources in these FTAs. Considering only eight Chinese FTAs address the issue of intellectual property,

¹⁶ Article 1 Convention on Biological Diversity.

¹⁷ Article 5.2 and Article 26.5 Patent Law (2008).

¹⁸ In Peru, the disclosure obligation is provided in Article 4 (c), Law No. 27811 of 24 July 2002, *Introducing a Protection Regime for the Collective Knowledge of Indigenous Peoples Derived from Biological Resources*. In Costa Rica, the disclosure obligation is provided in Article 25, Rules on Access (2003).

¹⁹ From the website of CBD, <https://www.cbd.int/abs/nagoya-protocol/signatories/>, last retrieved on Feb 3, 2017.

the protection of genetic resources and traditional knowledge is among the most widely discussed intellectual property topics in Chinese FTAs.

The focus of each of these six FTA provisions on genetic resources is slightly different. The China-New Zealand FTA is the first Chinese FTA to mention the protection of genetic resources and traditional knowledge, with no binding requirement for the parties. The China-Peru FTA is the first Chinese FTA touching on the disclosure obligation. The China-Costa Rica FTA introduces the concept of ABS for the first time. The China-Switzerland FTA is the only Chinese FTA addressing the legal consequence of the disclosure obligation. The China-South Korea FTA, as the first Chinese FTA signed after the *Nagoya Protocol*, reiterates certain requirements in the *Nagoya Protocol*.

Despite these differences, FTA provisions on genetic resources and traditional knowledge share some commonalities. First, they all demonstrate China's approach of soft rule-making. These provisions are more declarative as opposed to creating legally binding obligations. Including provisions on genetic resources and traditional knowledge in FTAs manifests the Chinese position of supporting the protection of genetic resources and traditional knowledge. However, since these rules are non-binding, there is no guarantee that their objective will be achieved. For instance, while the China-New Zealand FTA confirms the regulatory power of the parties to "establish appropriate measures to protect genetic resources, traditional knowledge and folklore to fulfill its international obligations", they are not obliged to do so.²⁰ Similar provisions can also be found in the China-Switzerland and China-Australia FTA.

The second commonality is that FTA provisions on the protection of genetic sources and traditional knowledge are synchronized with the progress of Chinese IP law and the Chinese position in multilateral negotiations. For instance, the disclosure obligation first appeared in the China-Peru FTA in 2010, following the Chinese patent law amendment in 2008 which incorporated the disclosure obligation into patent law for the first time. ABS first appeared in the Chinese FTA with Costa Rica in 2011, after China clarified its position in the *Nagoya Protocol* negotiation. Since China was not yet a signatory to the *Nagoya Protocol* when the China-Costa Rica FTA was signed, the China-Costa Rica FTA incorporated provisions on ABS without mentioning its commitment to the *Nagoya Protocol*. The situation changed in the China-South Korea FTA when China was determined to sign the *Nagoya Protocol*. The China-South Korea FTA requires both parties to incorporate the achievement of multilateral negotiations of the *Nagoya Protocol* in their FTA, especially emphasizing the principle of prior informed consent

²⁰ Article 165 China-New Zealand FTA provides that "Subject to each Party's international obligations, the Parties may establish appropriate measures to protect genetic resources, traditional knowledge and folklore".

and fair and equitable benefit-sharing. The subtle difference of the wording in the Chinese FTAs on the disclosure obligation shows how China cautiously adjusted its positions to keep the FTAs consistent with the progress of Chinese legislation and its position in multilateral negotiations.

Thirdly, China is flexible when negotiating on genetic resources with different partners. This flexibility is demonstrated by the case of the TRIPS-CBD relationship and the opt-out of genetic resources provisions in some FTAs. The TRIPS-CBD relationship was first negotiated multilaterally at the TRIPS Council. Brazil, China, and India along with other developing countries hold the position that “there are inherent conflicts between the two instruments, and the TRIPS Agreement needs to be amended to remove such conflict.”²¹ They further proposed amendments to TRIPS to coordinate with Article 16.5 of CBD (access and benefit sharing of genetic resources).²² The China Costa-Rica FTA tries to promote the priority of the CBD in the TRIPS-CBD relationship. It encourages both parties to establish mechanisms such as ABS “in conformity with what is established in the Convention on Biological Diversity”.²³ The China-Costa Rica FTA is consistent with the Chinese position at the TRIPS Council in supporting the CBD as a priority in the international regime complexity that governs genetic resources. The China-Switzerland FTA and the China-South Korea FTA require parties to be committed to “build a mutually supportive system between the TRIPS and CBD”. In these FTAs, the TRIPS-CBD relationship is more ambiguous because it is not clear which one will prevail when there is a conflict. States may take advantage of the legal fragmentation, in the context of regime complexity, by selectively complying with a certain regime that fits with their domestic policy objectives.

China’s flexibility in the FTA genetic resources provisions is also indicated by cases of ‘opt-out’ in which genetic resources are not mentioned at all. The protection of genetic resources is not reinforced over time. This is different from the IP provisions in US FTAs where a later FTA is negotiated based on the model of a previous one, and a chain effect is expected over time (Morin 2009). The China-Peru FTA first mentioned the disclosure obligation. Although the China-Australia FTA and the China-South Korea FTA were concluded after the China-Peru FTA, the disclosure obligation is not referred to in these FTAs (though China-South Korea FTA does actively promote the ABS in the Nagoya Protocol). The China-Switzerland FTA draws China away from a more proactive promotion of the disclosure obligation (Chapter 4.5.2).²⁴

²¹ IP/CIW/368/Rev.1. See note no. 9 in Chapter 4.

²² IP/C/W/474 (also circulated as WT/GC/W/564/Rev.2 and TN/C/W/41/Rev.2). See note no. 17 in Chapter 4.

²³ Article 111.3, the China-Costa Rica FTA.

²⁴ Article 11.9.5, the China-Switzerland FTA.

There could be various interpretations for this flexibility in Chinese FTAs. First, it may indicate the careful calculation of China in different FTA contexts. Secondly, it may indicate the lack of structural design of Chinese FTA texts and the lack of coordination among different negotiating teams (Liu 2016). Thirdly, as this provision is non-binding, China may use flexibility in the language to accommodate the FTA partner in order to conclude the negotiations earlier.

In sum, the protection of genetic resources and traditional knowledge is a typical case of China's active promotion of IP rules. China has tried to make soft rules in its FTAs, allowed for flexibilities, and adjusted its position to track the progress of its domestic law and multilateral agreements. However, this soft rule-making approach may be not sufficient to counterbalance the trend of actionable and binding TRIPS-plus intellectual property rule-making initiated by the US and the EU.

6.3.2 Intellectual property and public health

Intellectual property and public health was mentioned in six Chinese FTAs, specifically the China-Chile FTA, China-Peru FTA, China-Costa Rica FTA, China-Switzerland FTA, China-South Korea FTA and China-Australia FTA. The terms and conditions of the six FTAs on this issue are almost the same. Intellectual Property and public health have been actively promoted by the reiteration of the principle in (1) the *Doha Declaration on Intellectual Property and Public Health*, (2) the *Decision on Implementation of Paragraph 6 of the Doha Declaration* (2003), and (3) the *Geneva Protocol Amending TRIPS* (2005).²⁵

FTA provisions on intellectual property and public health are consistent with the progress of Chinese domestic legislation, like provisions on the protection of genetic resources. The key issue addressed by both the Decision on Implementation of Paragraph 6 of the Doha Declaration and the Geneva Protocol is the mechanism of compulsory license. In the *Patent Law (2008)*, a whole chapter (Chapter VI, Article 48 to 58) is devoted to the compulsory license mechanism. Article 49 *Patent Law (2008)* authorizes the patent regulator to use compulsory licenses during a national emergency or when an extraordinary affair occurs, or the public interest so requires. Article 50 authorizes the exportation of drugs manufactured under compulsory licenses to other countries based on relevant international treaties. All five FTAs were signed after the *Patent Law (2008)*. Therefore, the active promotion of public health in Chinese FTAs will not introduce further implementation problems for China.

In addition to the reiteration of the WTO agreements or decisions, the China-Australia FTA adds a principle of retaining sovereign regulatory power over public health. Article 11.1 (g) has authorized the use of regulatory power by the parties to take appropriate measures to protect

²⁵ The Geneva Protocol was not mentioned in the China-Chile FTA and China-Peru FTA.

public health and nutrition as long as the measures are consistent with TRIPS and the intellectual property chapter of the China-Australia FTA. This provision was supported by Australia because its *Tobacco Plain Packaging Act 2011* led to it being sued by Philip Morris Asia using the Investor-State Dispute Settlement and by Ukraine, Honduras and other Members at the DSB of the WTO (Hartmann 2017).²⁶

6.3.3 Geographical indications

GI-related issues are provided for in five Chinese FTAs because China has identified GIs as being in its national interest. GI-related provisions in Chinese FTAs were discussed in Chapter 3.4.4. The China-Chile, China-Peru and China-Costa Rica FTAs follow the EU model of listing certain GIs to be mutually recognized by the other party. The China-Australia FTA repeated the TRIPS provision confirming the state regulatory power over GIs: “each Party recognizes that geographical indications may be protected by a trademark or sui generis system or other legal means”.²⁷

As discussed in Chapter 3, the China-Switzerland FTA is ambiguous on GIs. It stipulates mutual protection of GIs²⁸ with a footnote that parties may require a registration procedure to acquire such protection. Different interpretations of this provision are possible (See Chapter 3.4.4).

Provisions on GIs in Chinese FTAs can be both a case of active promotion and active defensive. In most cases, the TRIPS standards concerning GIs are reiterated. Active promotion is on display in the provisions on mutual recognition of GIs in Chinese FTAs with Peru, Chile, and Costa Rica. There could also be an argument that the list of GIs for mutual recognition may result in a TRIPS-plus effect. This is because the complex and tedious procedure of examination of GIs originating from a foreign country is substantially streamlined in a mutual recognition scheme. Therefore, mutual recognition makes it easier for a GI to get protection in the territory of an FTA partner. What is unique in the case of mutual recognition of GIs is that such recognition may not trigger MFN because of the geographical confinement of GIs.

Although it seems China is promoting a rival standard through the mutual recognition of GIs, its position is still different from the EU which seeks to incorporate TRIPS-plus GIs standards in every one of its FTAs. China does not insist that every FTA partner include a list of GIs. An FTA partner can opt out if they do not want to include such a list, as in cases of the China-New Zealand, China-Iceland, and China-South Korea FTAs.

²⁶ The Attorney-General's Department of the Australian Government. 2017. *Tobacco Plain Packaging — Investor-State Arbitration*. <https://www.ag.gov.au/tobaccoplainpackaging>.

²⁷ Article 11.15, the China-Australia FTA.

²⁸ Article 11.13.3, the China-Switzerland FTA.

6.3.4 Limit to ISP liability

Internet Service Provider (ISP) liability only appears in the China-Australia FTA. ISP liability has never been an issue in multilateral negotiations. It is not mentioned in TRIPS or the WIPO Internet Treaties. Rule-making concerning ISP liability was first developed in the US courts in the form of a judge-made law which tended to pose a direct, vicarious or contributory liability on ISPs before the *Digital Millennium Copyright Act* (DMCA) in 1998 (Unni 2001). The DMCA provides four types of limitations or “safe harbors” on ISP liability, including (1) transitory digital network communications, (2) system caching, (3) information residing on systems at the direction of users, and (4) information location tools. Although these safe harbors do not offer more relief from liability than has already been stipulated by the courts, it does offer courts grounds in later cases not to follow the decisions that have already been rendered (Yen 1999).

However, the US has recently proposed more restrictive domestic legislation in the form of the *Stop Online Piracy Act* (SOPA) and *Protect Intellectual Property Act* (PIPA) to reinforce ISP liability. ISP liability was an important issue during both ACTA and TPP negotiations. These recent domestic and plurilateral laws were all intended to bypass the ‘safe harbor’ provision in the DMCA and to impose more restrictive liabilities on ISPs (Carrier 2012).

Australia issued its *Copyright Amendment (Digital Agenda) Act* in 2000, and one of its main purposes is to provide “limited immunity” for telecommunications carriers and ISPs from liability for authorizing infringement and contributory negligence (Rimmer 2006). However, after the signing of the US-Australia FTA, Australia had to amend its copyright law. The *Copyright Legislation Amendment Act* (2004) limits the scope of the exception for temporary copies made as part of a technical process of using an electronic copy of a work.²⁹

The negotiation of the China-Australia FTA started in 2005, just after the amendment of the Australian copyright legislation. During the 10-year negotiation of the FTA, China formulated its domestic legislation on ISP liability. The *Regulations on the Protection of Information Network Transmission Right* (2006), the *Tort Law* (2010) and related judicial interpretations³⁰ all address the issue of ISP liability. To counterbalance the pressure of the stricter ISP liability provisions provided by both Australian domestic law, as well as plurilateral agreements under negotiation, the China-Australia FTA includes the following provision confirming the regulatory power of the state to limit ISP liability:

²⁹ *Copyright Legislation Amendment Act*, 2004, § 3, Schedule 1. See Burrell and Weatherall (2008).

³⁰ Supreme People’s Court of China, *Provisions of the Supreme People’s Court on Several Issues concerning the Application of Law in Hearing Civil Dispute Cases Involving Infringement of the Right of Dissemination on Information Networks* 最高人民法院关于审理侵害信息网络传播权民事纠纷案件适用法律若干问题的规定 [Zuigao Renmin Fayuan Guanyu Shenli Qinhai Xinxi Wangluo Chuanboquan Minshi Jiufen Anjian Shiyong].

Each Party may take appropriate measures to limit the liability of, or remedies available against, Internet service providers for copyright infringement by the users of their online services or facilities, where the internet service providers take action to prevent access to the materials infringing copyright in accordance with the laws and regulations of the Party.

This provision is an example of active promotion because it resists the diffusion of more restrictive provisions on ISP liabilities from the US and keeps the door open for further regulation on ISP liability, an issue that is not regulated by TRIPS and other multilateral agreements.

6.3.5 Active promotion on other issues

In addition to the protection of genetic resources and traditional knowledge, implementation of the Doha Declaration, the protection of GIs, and regulatory power to limit ISP liability, Chinese FTAs also actively promote IP rule-making on the following issues:

- Cooperation – including the exchange of information, capacity building, and established contact point or intellectual property committee; and
- Pre-WTO dispute settlement procedure.

IP cooperation is mentioned in most Chinese FTAs that have an IP provision or IP chapter. Provisions on IP cooperation is the starting point for Chinese FTAs to include intellectual property provisions. The China-Chile FTA, the first Chinese FTA directly mentioning intellectual property in its text, puts IP provisions under the chapter of cooperation.

Different Chinese FTAs focus on different aspects of IP cooperation. The China-Peru FTA requires the exchange of information on conservation and sustainable use of biodiversity, actions to prevent illegal access to genetic resources and traditional knowledge, and domestic procedures concerning the practice of ABS.³¹ Such exchange of information between the parties will not only facilitate the learning of best practices from each other but also serve to provide evidence to support their respective positions in multilateral negotiations. A similar provision also appears in the China-Costa Rica FTA.³² In Chinese FTAs with developed countries such as Switzerland and South Korea, the key issue for cooperation is how to reinforce IP enforcement and exchange enforcement information. In the China-Switzerland FTA, the use of genetic resources is not mentioned in the exchange of information.

Chinese FTAs also enhance cooperation on specific IP issues where there is a common interest. For instance, the China-South Korea FTA not only mentions general cooperation but also specifically emphasizes cooperation on the issue of utility models. It provides the following:

³¹ Article 148.3 (a), the China-Peru FTA.

³² Article 117.1 (c), the China-Costa Rica FTA.

*Considering that both Parties have established utility model system, in order to facilitate the understanding and utilizing of utility model system by right holders and the public from both Parties and keep the balance of interests between right holders and the public, the Parties agree to enhance the cooperation on utility model legal framework of the Parties by exchanging information and experience on laws and regulations concerning utility model.*³³

This provision reflects the common interest of China and South Korea in the utility model system. The utility model is a type of intellectual property conducive to innovation and growth in developing economies (Kim et al. 2012). It is considered an integral and important part of the Chinese patent system (SIPO 2013). South Korea has also relied on the utility model system to promote innovation (Suthersanen 2006). Thus, both countries have a mutual interest to agree to further cooperation in this area in their FTA. This provision indicates the use of the “win-win” principle in Chinese FTAs, the idea being to maximize the common interests of both parties. It also indicates how China sees FTAs as a flexible tool. China did not require other FTA partners such as Chile, Costa Rica, and Peru to reinforce the utility model through FTAs. This practice is thus different from the US FTAs.

The China-New Zealand FTA and China-Iceland FTA both introduce consultation as a prior-WTO dispute settlement procedure.³⁴ Both articles provide that consultation is a prerequisite for any IP dispute before a party pursues dispute resolution using the FTA or the WTO dispute settlement mechanism. With this consultation procedure, possible IP disputes between the parties could be solved in a more informal way. This provision will benefit China, considering it is more likely to be sued by developed countries.

In summary, some issues that China has actively promoted have been areas that the US has opposed. The protection of genetic resources, traditional knowledge, and Intellectual Property and public health belong to this category. China gradually linked its position in FTAs to developments in its domestic laws. Chinese FTAs promoted these two issues by means of soft laws, so these provisions are more declarative of China’s position. In the case of GIs, the mutual recognition of GIs has appeared in a couple of Chinese FTAs. The protection of GIs is consistent with China’s national interest, but China does not require every FTA partner to have a mutual recognition mechanism. The limit to ISP liability was a case where China and Australia resisted the more restrictive standards in the US-Australia FTA. What was proposed was not a specific standard, but rather a reinforcement of state power to regulate ISP liability.

³³ Article 15.16.1, the China-South Korea FTA.

³⁴ Article 166 of the China-New Zealand FTA and Article 66.1 of the China-Iceland FTA.

6.4 TRIPS-plus standards in Chinese FTAs

TRIPS-plus standards refer to more extensive protection than that conferred by TRIPS or the closure of an option that is open in TRIPS. In the post-TRIPS era, these standards have been a battlefield for international intellectual property rule-making because these standards have encroached on flexibilities and policy space left open under TRIPS (Kur and Grosse Ruse-Khan 2011). TRIPS-plus IP provisions appear in recent Chinese FTAs with Switzerland, South Korea, and Australia. All these FTAs are signed with developed countries and include high IP protection standards. South Korea and Australia both have signed FTAs in which TRIPS-plus IP standards are incorporated.

Since TRIPS-plus standards do not necessarily result in new domestic obligations for China this section will evaluate the impact of TRIPS-plus standards through the comparison of those standards with relevant domestic Chinese laws. Specifically, TRIPS-plus standards have been introduced into China concerning the following issues:

- (1) Data exclusivity for biologics;
- (2) Protection of designs;
- (3) Abolish “visually perceptible” as a trademark registration requirement;
- (4) Border protection; and
- (5) Strict transparency obligation; and
- (6) Accepting more extensive protection as a principle.

6.4.1 Data exclusivity for biologics

Test data are data generated in the development of drugs, including data relating to a drug’s quality, safety, and efficacy, as well as to its physical and chemical characteristics (Correa 2002b). Test data and other data are required by national authorities for the purpose of registering pharmaceutical products. The central issue concerning test data protection is a third party’s use of the data for subsequent registration of similar products. There are two models for data protection concerning its use by a third party. First is trade secret protection. TRIPS adopted this approach and protected test data and other data as undisclosed information in Article 39.3. The other approach is data exclusivity, which treats test data as a type of intellectual property bearing a right of exclusivity. Before TRIPS, the US and the EU introduced data exclusivity as part of their domestic/regional legislation. The US successfully incorporated data exclusivity into North American Free Trade Agreement (NAFTA) but failed to incorporate data exclusivity into TRIPS. Nonetheless, data exclusivity reappeared in post-TRIPS US FTAs (Lopert and Gleeson 2013), including the TPP (Luo and Kesselheim 2015).

China has accepted data exclusivity during its accession to the WTO,³⁵ where six-year data exclusivity was granted for test data. After its accession to the WTO, China formulated a national regulation to implement a six-year data exclusivity period for the first applicant concerning subsequent submissions for market approval.³⁶ However, this national regulation is ambiguous as to whether biologics could be considered as “chemical entities” and to which data exclusivity could be granted.

In the China-Switzerland FTA, the parties agreed to provide six-year data exclusivity for biologics. Switzerland is the home to three of the world’s leading pharmaceutical companies; Ciba-Geigy, Hoffmann-La Roche, and Sandoz. Switzerland joined the US and EC proposal for data exclusivity in the TRIPS negotiation (Shaikh 2016, 70-72). Extensive data protection for biologics is an essential part of its interest.

The six-year data exclusivity period for biologics is not only a TRIPS-plus standard but also introduces an additional obligation for China. It has created a new obligation for China because test data for biologics have not been explicitly protected by domestic Chinese laws. Considering the competitive advantage of the Swiss pharmaceutical industry, it seemed that China made a big concession to provide data exclusivity for biologics. However, the China Food and Drug Administration (CFDA) proposed a ten-year data exclusivity for biologics, original orphan drugs or original drugs for children in 2017.³⁷ This proposal suggested that some in China saw long-term data exclusivity for biologics as being consistent with China’s interest long term.

6.4.2 Protection for designs

Both the China-Switzerland FTA and China-South Korea FTA include TRIPS-plus standards for industrial designs. However, the standards introduced by the two FTAs are different. The China-Switzerland FTA provides double protection—patent and copyright protection—to industrial designs. The China-South Korea FTA includes a new right in the form of a “right of offer to sell” to design right holders.

Article 11.12.1 of the China-Switzerland FTA first confirms ten-year patent protection for industrial designs as provided in TRIPS. In addition, it provides twenty-five-year copyright

³⁵ Para 284, Accession of the People’s Republic of China, 23 November 2001, WT/L432.

³⁶ Article 35.2 of *Regulations on Drug Administration* 药品管理法实施条例 [Yaopin Guanlifa Shishi Tiaoli].

³⁷ CFDA Notice on Calling for Comments on “Policies Related to Encouraging Innovations in Pharmaceuticals and Medical Equipment and Protecting Interests and Rights of Innovators (Draft for Comments)” 总局关于征求《关于鼓励药品医疗器械创新保护创新者权益的相关政策（征求意见稿）》意见的公告 [Zongju Guanyu Zhengqiu Guanyu Guli Yaopin Yiliao Qixie Chuangxin Baohu Chuangxinzhe Quanyi de Xiangguan Zhengce (Zhengqiu Yijian Gao)].

protection for industrial designs that could be “considered as works of applied art and fulfill the general condition required for copyright protection by the respective domestic legislation”.

China started to protect industrial designs in its *Patent Law* (1984), which granted five-year protection to designs with a possible renewal of another three years.³⁸ *Copyright Law* (1990) did not include copyright protection for *applied art*. After China joined the Berne Convention in 1992, the State Council issued *Provisions on the Implementation of the International Copyright Treaties*, which granted 25-year copyright protection for foreign works.³⁹ This is super-national treatment since the same level protection is not available to Chinese right holders. The term for patent protection of industrial designs increased to ten years after China’s accession to the WTO. Meanwhile, the super-national treatment of copyright protection for applied arts continues to be effective for foreigners. In the *Copyright Law Proposal* (2014),⁴⁰ 25-year copyright protection for applied arts was to be made equally available to domestic and foreign right holders. If this proposal is approved, double protection (ten-year patent rights for designs and 25-year copyright protection for applied arts) will be available in China for any right holder.

Considering the domestic legislative progress, the China-Switzerland FTA on copyright protection for designs will not introduce additional obligations for China. Nonetheless, such protection itself forms a TRIPS-plus standard in the sense that the double protection may derogate from the flexibility for Members to decide the specific system to protect designs otherwise available in TRIPS.

Article 15.20.2 of the China-South Korea FTA provides that right holders of industrial designs can prevent unauthorized “making, offering for sale, selling, importing” articles bearing or embodying the protected design. The offering for sale of such articles is a TRIPS-plus standard because it grants a right for designs not mentioned in Article 26.1 of TRIPS. Again, this TRIPS-plus standard will not introduce a new obligation for China because the same level protection has already been provided in Article 11 of *Patent Law* (2008).

³⁸ Article 45.2 Patent Law (1984).

³⁹ The definition of “foreign works” conforms to the national treatment principle of the Berne Convention. Specifically, Article 4 of the *Provisions on the Implementation of the International Copyright Treaties* defines the scope of foreign works as “(1) works of which the author or one of the co-authors or the other owner of copyright or one of the co-owners of copyright is a national or a permanent resident of a country party to the international copyright treaties; (2) works of which the author is not a national or a permanent resident of a country party to international copyright treaties but which have been first published or published simultaneously in a country party of the international copyright treaties; or (3) works created by others by commission from a Chinese-foreign equity joint venture, a Chinese-foreign contractual joint venture or a foreign-capital enterprise which, by virtue of a contract, is the owner of copyright or one of the co-owners of copyright of the work.”

⁴⁰ Article 29.3. Copyright Law (Amendment for Deliberation) 著作权法（修订草案送审稿）
[Zhuzuoquanfa (Xiuding Caoan Songshengao)] http://www.gov.cn/xinwen/2014-06/10/content_2697701.htm.

6.4.3 Abolition of “visually perceptible” as a trademark registration requirement

Article 15.1 TRIPS provides that “Members may require, as a condition of registration, that signs be visually perceptible”. The China-Switzerland FTA actively defends this requirement in its Article 11.7.1. However, the China-South Korea FTA closes this option in TRIPS by stipulating that “neither Party may require, as a condition of registration, that signs be visually perceptible, nor may either Party deny registration of a trademark solely because the sign of which it is composed is a sound”.⁴¹ This is a TRIPS-plus standard because it enlarged the scope of trademark protection by lowering the registration requirement.

Like TRIPS-plus standards for designs, the abolition of the ‘visually perceptible’ requirement for trademark registration does not introduce an additional obligation for China. This is because in the amended *Trademark Law* (2013), ‘visually perceptible’ is no longer a condition for trademark registration.⁴²

6.4.4 Border measures

Provisions on border measures are included in the Chinese FTAs with Chile, Peru, Costa Rica, Switzerland, South Korea and Australia. In these FTAs, the China-Chile FTA (Article 11), China-Peru FTA (Article 147) and China-Costa Rica FTA (Article 114) mainly confirmed the provisions existing in TRIPS in terms of suspension of release, application, requirement for security or equivalent assurance to protect defendants and prevent abuse, right of inspection and information and *ex-officio* action (Article 51-53, 57, and 58 TRIPS). In addition to these active defensive provisions, the China-Switzerland and China-South Korea FTAs also introduced TRIPS-plus standards in border measures (Table 17).

⁴¹ Article 15.11.2, the China-South Korea FTA.

⁴² Article 8 of the *Trademark Law* (2013) stipulates that “any signs, including words, graphs, letters, numbers, three-dimensional symbols, colour combinations, sound or any combination thereof, that are capable of distinguishing the goods of a natural person, legal person or other organization from those of others may be applied for registration as trademarks”. English version of the law is available at the WIPO website: http://www.wipo.int/wipolex/en/text.jsp?file_id=341321.

Table 17 Border Measures in Chinese FTAs

Content	Scope of protection	Intellectual property under protection
TRIPS	Importation	suspected counterfeit trademark or pirated copyright goods
Regulation on the Customs Protection of Intellectual Property Rights of China (2010)	Importation and exportation (Article 3)	patents, trademarks or copyright protected by the present legislation of China (Article 2); special signs for Olympics and special signs for World Expo
China-Chile FTA	Importation and exportation	suspected counterfeit trademark or pirated copyright goods
China-Peru FTA	Importation, exportation, and goods in transit	suspected counterfeit trademark or pirated copyright goods
China-Costa Rica FTA	Importation and exportation	suspected counterfeit trademark or pirated copyright goods
China-Switzerland FTA	Importation and exportation	goods infringing patents, industrial designs, trademarks or copyright
China-South Korea FTA	importation, exportation, in transition, placement under a free zone and placement under a bonded warehouse	Trademarks and copyright, and goods which, according to the legislation of the Party in which the application for customs action is made, infringe a patent, a plant variety right, a registered design, or a geographical indication.
China-Australia FTA	Importation and exportation	suspected counterfeit trademark or pirated copyright goods

China accepted TRIPS-plus standards concerning border measures before TRIPS. TRIPS only requires Members to implement border measures for trademarks and copyright in the process of importation. Protection of other types of intellectual property and inspection in the process of exportation are optional according to Article 51 TRIPS. Nonetheless, China accepted high standards on customs protection of intellectual property during its bilateral negotiations with the US in the early 1990s. After the *US-China Intellectual Property MOU* (1992), China formulated *Regulation on the Customs Protection of Intellectual Property Rights* (1995) which protects copyright, trademarks, and patents in both importation and exportation of goods.⁴³ Although this standard turned out to be higher than that in the final text of TRIPS, China may not derogate from this standard in its domestic legislation because of the treaty obligation contained in the 1992 MOU. Therefore, FTA provisions concerning (1) border measures for the export of goods and (2) border measures for patents (special signs for Olympics and World Expos) are TRIPS-plus

⁴³ Article 3, 5, 14, 17, 19, 28, 29 and 31 of the *Regulation on the Customs Protection of Intellectual Property Rights* (1995) 海关知识产权保护条例 [*Haiguan Zhishichanquan Baohu Tiaoli*] (1995).

standards that do not introduce additional obligations for China. In practice, the China-Chile, China-Costa Rica, China-Australia and China-Switzerland FTAs include such standards.

The China-Peru FTA and China-South Korea FTA also include provisions on border measures for goods-in-transit. Border measures for goods-in-transit is a controversial issue, especially in the case of Netherlands' seizure of generic drugs on their way from India to Brazil.⁴⁴ The amendment of the EU regulation suggested that the international standard is tilting towards no border measures for goods-in-transit. This issue has not yet been negotiated at multilateral fora, but the outcomes in ACTA indicate the efforts to push plurilateral rule-making on border measures for goods-in-transit have been in vain. Border measures for goods-in-transit have not been part of domestic Chinese law. However, the above FTA provisions on border measures for goods-in-transit have locked China into the adoption of more restrictive border measures.

The China-South Korea FTA further extended the types of intellectual property protected by border measures to "goods which, according to the legislation of the Party in which the application for customs action is made, infringe a patent, a plant variety right, a registered design, or a geographical indication."⁴⁵ Current Chinese regulations only explicitly confer customs protection on copyright, trademarks, and patents. The border measures for plant variety rights and GIs have already exceeded the level of protection to be found in China's domestic IP laws, and therefore introduce additional obligations for China. This provision in the China-South Korea FTA reflects the shadow of border measures growing to cover more types of intellectual property than TRIPS, a shadow that is being cast by ACTA and other US and EU-led FTAs. For instance, border measures in ACTA cover patents, GIs, and new plant variety rights.⁴⁶ The EU-South Korea FTA provides border measures for all types of intellectual property. Moreover, the China-South Korea FTA extends border measures to goods "in transition, placement under a free zone and placement under a bonded warehouse". Just as with goods-in-transit, border measures for goods under a free zone and bonded warehouse are TRIPS-plus standards in the sense that these goods are not yet "imported" into the territory of a state. Both the extension of IP protection to more types of intellectual property and to other processes beyond importation of goods are TRIPS-plus standards requiring China to bring its domestic laws into compliance. In addition, through the TRIPS MFN principle, these protections will be extended to other WTO members.

⁴⁴ The seizure was made merely on the basis of alleged patent infringement in the transit country (Netherlands), although such drugs did not infringe any patents in both the country of origin (India) and country of destination (Brazil). India and Brazil requested a consultation with the EU at the WTO (DS 408 and DS409). The WTO cases were settled later when EU and India reached an agreement to amend the EU Measure 1383/2003.

<http://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=1026&context=research>

⁴⁵ Foot note 11, the China-South Korea FTA.

⁴⁶ Article 5 (h) and Article 13 of ACTA.

6.4.5 Additional transparency obligation

Article 63 TRIPS provides a transparency obligation concerning intellectual property. It requires a WTO Member to publish IP legislation, judicial decisions and administrative rulings in a national language. The China-South Korea FTA requires parties to publish such information in the national language of each party.⁴⁷ The China-Australia FTA requires parties to publish the database of invention patents, industrial designs, utility models, plant variety rights, geographical indications, and trademarks via the Internet.⁴⁸ Requiring publication in other languages or through a certain media (Internet) are not specifically required by TRIPS, so the transparency requirements in these two FTAs impose extra duties on China. They are considered as a TRIPS-plus standard because they limit China choice in selecting instruments to implement the TRIPS transparency requirement. The specified approach, especially publishing in other languages poses extra duties for China.

6.4.6 Calculation of damages

Although provisions on civil procedure in the China-Switzerland and China-South Korea FTAs are generally active defensive, the specified rules on the calculation of damages constitute a TRIPS-plus standard. The calculation of damages is one of the ‘constructed ambiguities’ in TRIPS. No matter how the ambiguous rules are specified, the specification *per se* limits freedom of Members to “determine the appropriate method of implementing TRIPS provisions within their own legal system and practice” (Article 1.1 TRIPS).

The China-Switzerland FTA requires judicial authorities to consider the actual damage or to establish a fair license fee in determining the amount of damages.⁴⁹ The China-South Korea FTA further specifies that the calculation of damages should consider “the value of the infringed goods or services, measured by the market price, the suggested retail price, or other legitimate measures of value submitted by the right holder”.⁵⁰ TRIPS is silent on specific ways to calculate damages, so it is open to its Members to decide for themselves. The two FTA provisions mentioned above limit the discretion of judges in making decisions concerning the calculation of damages, thus constituting a TRIPS-plus standard.

The above two FTA provisions concerning the calculation of damages do not introduce further obligations for China. They are compatible with Chinese domestic IP legislation. Before signing the China-Switzerland FTA and China-South Korea FTA, the actual losses of right holders and reasonable royalties have already been mentioned in domestic Chinese intellectual property laws.

⁴⁷ Article 15.22.1, the China-South Korea FTA

⁴⁸ Article 11.6.2, the China-Australia FTA.

⁴⁹ Article 11.19 (b), China-Switzerland FTA.

⁵⁰ Article 15.24. 2 (b), China-South Korea FTA.

For instance, actual loss, benefit acquired from infringement, and reasonable royalty are stipulated in *Trademark Law* (2013) and *Patent Law* (2008).⁵¹ Chinese IP laws also provide statutory compensation as a fourth way to calculate damages.⁵² Nonetheless, with the specific requirements in the FTAs, a party is constrained by its treaty obligation to calculate damages in certain ways; in particular, it loses its freedom to amend its domestic laws in a way that takes a different approach.

6.4.7 Principle of minimum standards

The China-South Korea FTA allows parties to provide more extensive protection for IP. Article 15.4 stipulates “each Party may, but shall not be obliged to, provide more extensive protection for, and enforcement of, intellectual property rights under its law than this Chapter requires, provided that the more extensive protection does not contravene this Chapter.” Article 11.3 of the China-Australia FTA includes a similar provision entitled “*Obligations are Minimum Obligations.*”

This principle itself may not directly be TRIPS-plus, but it is an enabling provision. It enables the FTA to confer more extensive protection on intellectual property. It opens the door to a bilateral or plurilateral ratcheting up of TRIPS standards. This provision models Article 1.1 TRIPS and has a lock-in effect on the TRIPS-plus commitment made in any subsequent FTA. With this provision, states may not compromise any TRIPS-plus commitment they made in these FTAs. Together with the MFN principle in TRIPS, these provisions of minimum standards in FTAs become a stepping stone to more extensive protection.

6.5 Compliance with other multilateral intellectual property treaties

In addition to TRIPS, China has also entered into 14 WIPO-administered treaties, ratified the convention administered by the International Union for the Protection of New Varieties of Plants (UPOV), CBD and its protocols, and become a member of three UNESCO treaties.⁵³ As mentioned, treaty obligations arising from implementing these multilateral intellectual property treaties are not TRIPS-plus. This section will analyze them separately.

Following the analytical framework of Chinese FTAs and TRIPS, the relationship between Chinese FTAs and other multilateral intellectual property treaties could be passive defensive (as long as both parties are members of a treaty), active defensive or active promotion of a rival standard. The China-Iceland FTA, China-Switzerland FTA, and China-South Korea FTA all

⁵¹ Article 63.1, *Trademark Law* (2013) and Article 65.1, *Patent Law* (2008)

⁵² Article 63.3, *Trademark Law* (2013); Article 65.2, *Patent Law* (2008); and Article 49.2, *Copyright Law* (2010).

⁵³ See Appendix I for a list of international treaties that China is a member.

include an active defensive provision which lists multilateral treaties as part of the FTA.⁵⁴ The China-South Korea FTA not only lists the names of treaties that both parties have concluded but also reiterates the specific provisions on preventing circumvention through technological measures and protection of rights management information in the WTO Internet treaties.⁵⁵

The focus of this section is on the more extensive protection that China agrees to in its FTAs than the current domestic legislation in China because these provisions will introduce additional obligations for China in the process of compliance. Specifically, protection of plant variety rights in the China-South Korea FTA is discussed as an example. The UPOV administers the *International Convention for the Protection of New Varieties of Plants* (UPOV Convention). Two texts of the Convention—UPOV 1978 and UPOV 1991 – are relevant here. The major difference is that the UPOV 1978 is more generous, including farmers’ exemption (or privilege),⁵⁶ but UPOV 1991 tends to favor the right holders. China is a Member of UPOV 1978, and the farmers’ exemption is permitted in China.

The China-Switzerland FTA is generally consistent with the text of UPOV 1978. That means its provisions are active defensive of UPOV 1978 and do not create new obligations for China. A comparison of Article 15.18 of the China-South Korea FTA, the Chinese *Regulation on the Protection of New Varieties of Plants* (2013), UPOV 1978, and UPOV 1991 shows that the China-South Korea FTA is more similar to UPOV 1991. In particular, it mentions the right of exporting and importing, something that does not exist in either Chinese domestic regulations or the UPOV 1978. Therefore, the China-South Korea FTA has introduced new obligations for China. However, since the farmers’ exemption (the most important provision in UPOV 1978 for the public) still exists in the China-South Korea FTA, this FTA will not put Chinese farmers in a more disadvantageous situation as the UPOV 1991 may have done. In summary, though China made a concession in the form of right of exporting and importing, it did not compromise the farmers’ exemption. Considering China is a major exporter of vegetables and fruit to Korea, such an arrangement shows careful calculation by China concerning what is acceptable to it in FTAs and what is not.

⁵⁴ See Article 64 of the China-Iceland FTA, Article 15.3 of the China-South Korea FTA, and Article 11.3.1 of the China-Switzerland FTA.

⁵⁵ Article 15.8 and Article 15.9 China-South Korea FTA.

⁵⁶ Farmer’s exemption refers to a right of farmers to save their seeds for next year’s sowing on their own holdings. For instance, UPOV 1978 provides that “breeder, restrict the breeder’s right to permit farmers to use for propagating purposes, on their own holdings, the product of the harvest which they have obtained by planting, on their own holdings, the protected variety.” Such provision is abolished in UPOV 1991.

6.6 Conclusion

This chapter examined Chinese FTAs through their comparison with TRIPS and domestic Chinese IP legislation. The key message from the examination of IP provisions in Chinese FTAs is that these provisions are basically consistent with the TRIPS provisions, because of the overwhelming amount of TRIPS-defensive provisions, either passive or active. This message is emphasized here because, in the process of analysis, the focus was given to active promotion standards and TRIPS-plus standards in Chinese FTAs simply because they are new, different and under-researched. Nonetheless, the basic pro-TRIPS position in Chinese FTAs, either through their explicit reiteration or quiet acknowledgment through defensive provisions, should not be obscured. Basically, Chinese FTAs defend TRIPS as the dominant multilateral IP agreement and defend the WTO, the major multilateral forum for IP rule-making. The majority of defensive IP provisions in Chinese FTAs further support a higher-level conclusion that China basically takes a pro-development, developing country position in its bilateral engagement. These defensive provisions, to some extent, counterbalance the trend of the global IP ratchet.

The active promotion provisions and TRIPS-plus provisions are important to detect the ‘novelty’ of IP provisions in Chinese FTAs. The active promotion provisions in Chinese FTAs reflect an interest of China that is not adequately promoted by TRIPS. China’s promotion of the disclosure obligation, GIs, public health and the limit of ISP liability, though sometimes through non-binding soft laws, shows how China supports rival standards proposed by developing countries. However, it is not clear at the current stage to what extent China is willing to be a regulatory innovator by leading alternative rule-making on these issues.

For every TRIPS-plus standard in Chinese FTAs, two questions were raised and answered. First, how does the standard exceed TRIPS protection or eliminate an option otherwise open in TRIPS, and secondly whether it creates a new obligation for China? Among seven issues that have been identified as TRIPS-plus standards, the additional obligations that are imposed on China include the six-year data exclusivity for biologics and more restrictive border measures. The other five TRIPS-plus standards are essentially a reiteration of the TRIPS-plus standards that already existed in Chinese IP law. Nonetheless, a reiteration of domestic IP rules that exceed TRIPS standards in FTAs will lock in China, because these TRIPS-plus standards become international obligations. Strategically, China’s acceptance of TRIPS-plus standards reveals an inconsistent practice when compared with its general TRIPS-defensive position. This inconsistency will be discussed in the section on its strategy of disassembling (Chapter 10.3.1).

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Chapter 7 China's IP Engagement in Multilateral and Plurilateral Fora

7.1 Introduction

In the previous chapter, I analyzed intellectual property provisions in Chinese FTAs with a focus on comparing them with TRIPS standards. This chapter will focus on China's multilateral and plurilateral IP engagement. At the multilateral level, WIPO and WTO are the key fora to analyze. When considering plurilateral fora, I will differentiate between two types of engagement: China's response to the vertical forum-shifting initiative of the US and its supporters; and China's initiatives to promote its own plurilateral/regional IP agenda.

China has developed a level of trust in WIPO since the 1970s, and its engagement with WIPO has increased in recent years. The Diplomatic Conference for WIPO *Audio-visual Performance Treaty* was hosted in Beijing, and the treaty was named after Beijing. The WIPO Beijing Office opened in 2014. Reciprocity has been enhanced in recent China-WIPO engagement. While WIPO supported China's regional Belt and Road Initiative (BRI), China defended WIPO's role as the major forum for multilateral IP engagement. Section 7.2 will analyze the above issues in further detail.

China's engagement with WTO on IP issues has been discussed at various places in this thesis. China has used TRIPS to resist the U.S TRIPS-plus IP requirements in the US-China IP negotiations. China amended its IP laws to comply with TRIPS after its WTO accession, and another amendment was made to comply with the WTO dispute settlement resolution (Chapter 2.4). China cosponsored developing countries and the EU's proposals on GIs and the disclosure obligation (Chapter 3 and 4). China condemned the US for its forum-shifting to ACTA. China has defended the WTO firmly in the face of US bilateralism. This engagement shows China's position at the WTO is a classic pro-development position shared by developing countries. Building on this basic point of view, Section 7.3 will focus on China's IP proposal at the WTO, which was most closely related to the research question of whether China is an international IP rule-maker.

In recent years, the US has initiated vertical forum-shifting through a couple of plurilateral IP agreements, in particular, ACTA and TPP, to enhance global IP standards beyond TRIPS (Sell 2010b). Vertical forum shifting refers to the strategy of shifting IP negotiations from the multilateral level to the plurilateral level where it may be easier to reach an agreement with fewer members. Section 7.4 will analyze China's position by comparing Chinese IP law and IP standards in ACTA and TPP. ACTA is already a proved failure. The TPP has gone ahead in the form of the Comprehensive and Progressive Agreement for the Trans-Pacific Partnership

(CPTPP), but without the participation of the US.¹ These two agreements are natural experiments to test China's position on TRIPS-plus standards. In the case of the TPP, the discussion in this chapter will be in the process of standard setting as it existed with US participation. China opposed ACTA and TPP actively at the TRIPS Council meetings, despite there being no pressure for China to accept ACTA and TPP standards.

Along with the domestic demand that China should increase its discursive power in international IP rule-making, intellectual property has been incorporated as an issue in China-participated or China-led plurilateral/regional initiatives. Section 7.5 will analyze China's IP engagement in the RCEP, BRI, and the BRICS (including Brazil, Russia, India, China and South Africa). China keeps a low profile in negotiating IP rules at RCEP and does not attempt to take on a leadership role. In BRI and BRICS, China has developed into a model exporter, focusing on IP capacity building in these countries.

Section 7.6 will explore the SIPO's role in international patent regulation. SIPO, as the national patent regulator, has developed extensive transnational networks. An examination of its transnational engagement will demonstrate how multichannel communications have taken place among sub-state actors in a globalized world. It is through such engagement that SIPO has developed into an independent node in international IP regulation.

7.2 China and WIPO: a tale of reciprocal engagement

WIPO has been considered as something of an abandoned forum for IP rule-making after the US created a trade agenda on intellectual property in the GATT negotiations in the 1980s (Braithwaite and Drahos 2000, Sell 2003). However, the shift does not mean that WIPO is no longer important. Abbott (2000) has pointed out that the inter-institutional relationship between WTO and WIPO enabled the co-evolution of the two fora. Also, leaving enforcement to the WTO enabled the recent resurgence of WIPO as a more focused agency concentrating on socialization and norm-building (May 2006, 35).

WIPO is able to be a self-sufficient international organization because 90% of its operating budget comes from its administration of the PCT. Such budgetary facts may "compromise its image as a technocratic, objective civil servant" (Sell and Prakash 2004). Indeed, WIPO has long played the role of a missionary to spread the ideology of intellectual property (Drahos 2010). WIPO has actively engaged developing countries in intellectual property capacity building by providing technical assistance. It also creates TRIPS-plus obligations for its members. For instance, the WIPO Performances and Phonograms Treaty (WPPT) and WIPO Copyright Treaty (WCT)

¹ The *Comprehensive and Progressive Agreement for the Trans-Pacific Partnership* (CPTPP) was signed in March 2018, in Chile.

include higher standards than TRIPS in online copyright protection (Chapter 6.5). The US is still a powerful actor in ongoing WIPO negotiations. For instance, the WIPO IGC negotiation was suspended in the year 2015 because the US opposed its working agenda (Chapter 4.2.2).

The China-WIPO engagement started with WIPO's technical assistance to China. As Chinese applicants became the largest community to use various WIPO treaties, and as China's international influence increases in recent years, one can find the spirit of reciprocity in the China-WIPO engagement.

7.2.1 History of trust built on technical assistance

The relationship between China and WIPO can be seen as early as 1973, one year after the UN recognized the PRC as the representative of "China"² at the UN. WIPO, as one of the 16 special organizations of the UN, began to send invitations to China to attend its meetings. China, dispatched the China Council for the Promotion of International Trade (CCPIT)³ to attend the WIPO meeting in November 1973 as an observer. The first contact was fruitful: after the meeting, the CCPIT assessed the feasibility for China to join WIPO and recommended China to establish a patent system. Though its proposal was shelved due to the Cultural Revolution, the seed for a patent system had been planted (Zhao 2008).

Dr. Árpád Bogsch (the then Director General of WIPO) indirectly influenced the domestic debate on whether China should retain the inventor's certificate during the preparation for China's *Patent Law* (1984) and provided comments on one of its early drafts of this law. Patent law in China was censured because it was believed as a bourgeois right 资产阶级法权 [*zichan jieji faquan*]. To achieve a compromise, an early draft of the Patent Law designed a "dual track" system where invention patents and inventor's certificates⁴ could coexist. China sent a delegation to participate in the Diplomatic Conference for the Amendment of the Paris Convention in 1980. During the breaks in this conference, Bogsch devoted hours of private discussions with Chinese patent law drafters to detailed technical questions in Chinese patent law. According to Zhao Yuanguo, one of the drafters of Chinese *Patent Law* (1984), the discussion with WIPO was important for China to formulate a "better, modern and advanced patent law" (Zhao 2008). WIPO's comments helped Chinese patent law to gear towards international standards 和世界接轨 [*he shijie jiegui*]. In addition to patent law, WIPO also provided technical assistance on the early draft of copyright law in 1986 (Liu 2009).

² From 1945 to 1972, the position was assumed by the Nationalist Government based in Taiwan.

³ The CCPIT is a civil society responsible for international communication at that time. The identity of the CCPIT indicated China wanted the contact to remain informal.

⁴ A legacy of the USSR where only honorary titles were granted to the inventors without remuneration. See Chapter 2.3.

In parallel with the legislative progress in intellectual property, China became a contracting member of WIPO on June 3, 1980, and joined the Paris Convention on March 19, 1985. To date, China has ratified 14 and signed three WIPO-administered IP treaties (Appendix I). Participating in WIPO IP treaties has aligned the Chinese IP system to world standards. Meanwhile, China cooperates with WIPO in joint research projects as well as personnel training and information exchange. Cooperation has also been enhanced in specific technical fields, for instance in trademark classification (SAIC 2016) and patent classification (See Section 7.6.1). Such cooperation has smoothed multi-channel communications between technocrats in China and WIPO.

While China was frequently criticised by the US for ineffective and inadequate IP protection in the early 1990s, WIPO recognized the progress China made in intellectual property. When the US put China on the Special 301 watch list and occasionally threatened China with unilateral trade retaliation, Bogisch observed that “China’s IP development in the last two decades was unprecedented in the history of intellectual property”.⁵ Bogisch’s comment was quoted by *China Intellectual Property White Paper* (1994) to demonstrate the progress made by China with its IP system (State Council Information Office 1994). The endorsement by WIPO helped China to respond to the US criticism and further consolidated the China-WIPO friendship.

In recent years, the number of IP filings from China has increased dramatically. The Chinese trademark office has received the largest number of annual trademark registrations since 2001. Since the recent global financial crisis, China has been the major contributor to the global increase in the Patent Cooperation Treaty (PCT) applications. In 2016, SIPO received 1.3 million patent applications, more than the sum of the applications received by USPTO, JPO, and KIPO (WIPO 2017a). WIPO has enhanced its liaison with China in recent years as a response to the pivotal role played by China in the WIPO-administered treaties. China also supported WIPO to remain the major platform for international IP rule-making. This sub-section will discuss the strategic reciprocal relationship that China and WIPO have developed in recent years, specifically: (1) the opening of the WIPO Beijing Office, (2) the naming of the WIPO audio-visual performance treaty after Beijing, (3) WIPO’s support for the BRI and (4) China’s support for WIPO to become the major forum for IP rule-making.

7.2.2 WIPO Beijing office: a response to surging Chinese IP applications

China became a contracting member of the PCT in 1994 and simultaneously became one of the receiving offices for PCT applications. China was also the first developing country recognized as

⁵ This was from a speech Bogisch gave in China, in 1993, when reflecting on the 20-year WIPO-China cooperation from 1973.

an International Searching Authority (ISA) as well as an International Preliminary Examination Authority (IPEA) for PCT applications. China has become the third largest user of the PCT system since 2013. In 2016, the number of PCT applications from China underwent an annual increase of 44.7%. As reported by WIPO, “if this current trend continues, China will overtake the US within two years as the largest user of the PCT System”(WIPO 2017b).

In the field of trademark, the Madrid System, on the basis of several WIPO-administered treaties,⁶ provides streamlined services for the international registration of trademarks. China became a contracting member of the Madrid Agreement in 1989 and Madrid Protocol in 1995. It has been the sixth largest user of the Madrid System for the international registration of trademarks since 2013. SAIC representing China signed an MOU with WIPO on May 11, 2016, to enhance their cooperation in international trademark registration (SAIC 2016).

WIPO opened its Beijing Office in October 2014 as a response to the increasing use of WIPO-administered treaties by Chinese applicants. The Beijing office is the fifth regional office of WIPO outside of its headquarters in Geneva. Through the Beijing Office, WIPO developed a deeper liaison with Chinese ministries in charge of intellectual property (WIPO 2016c). The Beijing Office also enabled WIPO to collect and timely update information about the Chinese economy and politics. When WIPO perceived opportunities in China’s grand regional agenda of BRI, it actively encouraged the IP element in the BRI, by encouraging closer cooperation with SIPO (See Section 7.2.3.3).

7.2.3 Beijing Treaty on Audiovisual Performances

The Beijing Treaty on Audio-visual Performance (Beijing Treaty)⁷ is a WIPO-administered treaty to enhance protection of performers’ rights. Though China did not make a meaningful contribution to the negotiation of the text of this treaty, holding a diplomatic meeting in Beijing and naming the treaty after Beijing did have foreign policy significance. The well-documented interaction between NCAC and WIPO also shows how WIPO and Chinese IP regulators engage with each other.

The issue of performers’ protection originated from controversial provisions in the Rome Convention.⁸ Basically, the protection of performers’ rights in the Rome Convention is only extended to live performance and recording and reproduction through phonogram. The Rome

⁶ The Madrid System is governed by the *Madrid Agreement Concerning the International Registration of Marks* (Madrid Agreement) and the *Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks* (Madrid Protocol).

⁷ WIPO, *Beijing Treaty on Audio-visual Performances*, Adopted by the Diplomatic Conference on the Protection of Audiovisual Performances in Beijing, on June 24, 2012.

⁸ WIPO, *International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations* (Rome Convention (1961)).

Convention provides “once a performer has consented to the incorporation of his performance in a visual or audiovisual fixation, performers are not entitled to the rights granted by the Convention”.⁹ When the Rome Convention was adopted, film-making was the only way to produce audio-visual works. But with the development of digital technology and channels for dissemination, the Rome Convention was not enough to protect performers’ rights. Although the issue of performers’ protection was mentioned in TRIPS and the WIPO Performances and Phonograms Treaty (WTPP), these treaties continue the logic of the Rome Convention.

The EU-US disagreement has slowed down the progress of a harmonized global governance around performers’ rights. The EU has been active in developing regional rules to further protect performers,¹⁰ but the US opposed international negotiations to extend performers’ rights to audiovisual works for fear that such an extension would adversely affect the development of the US film industry. International negotiation on a new treaty on performers’ rights in audio-visual works finally started in the year 2000 under the auspices of WIPO. A consensus was reached in 2011. Although the treaty was later named after Beijing and China did participate in the negotiations, China did not make a substantive contribution to the outcome of the treaty. It was again a deal between the EU and the US (Drezner 2008, 71-87).

Yan Xiaohong, Vice Minister of the National Copyright Administration of China (NCAC), documented the history of the Beijing Treaty in a memoir. He mentioned it was Wang Bingyin, Deputy Director-General of WIPO, who first contacted the NCAC, “she will endeavor to facilitate Beijing to be the venue for the diplomatic conference if China would like to consider it”(Yan 2014a, 6-7). The proposal was later approved by the Chinese government after a deliberation involving experts and representatives from the China Ministry of Foreign Affairs (CMFA), Ministry of Commerce (MOFCOM), State Administration for Industry and Commerce (SAIC), SIPO, Legislative Affairs Office of the State Council (LAO), and Legislative Affairs Committee of the NPC (LAC).

Hosting the diplomatic conference on an IP issue was of symbolic significance for China, because it enabled China to display its achievements in intellectual property. As pointed out by Yan (2014a, 7): “though China has made remarkable progress in recent years, there are still critics from the US, EU, and Japan. Hosting the conference in Beijing will introduce representatives from various countries to China to feel the development of China and acknowledge its development in intellectual property.”

⁹ Article 19 of the Rome Convention.

¹⁰ For instance, the European Economic Community (EEC) promulgated the Council Directive 92/100/EEC of 19 November 1992 on rental right and lending right and on certain rights related to copyright in the field of intellectual property.

7.2.4 WIPO's support for the Belt and Road Initiative

China started its Belt and Road Initiative (BRI)¹¹ in 2013. Geopolitically, the BRI is important because it is extending China's outreach to Central Asia, Europe, South East Asia and Africa. It is perceived by the US as a counter-initiative to jeopardize the US pivot to Asia (Overholt 2015), in particular, a challenge to the US thinking about world trade.¹² The BRI treats Asia and Europe as a single space, in which China is its focal point. The grand initiative inspired cooperation between China and over 60 countries along the Belt and Road (BRI Countries) on many issues related to trade, in particular, infrastructures such as express railways, ports, and pipelines. As China becomes a technology exporter in these deals, it is imperative that IP systems are established in these countries. China began to develop IP cooperation with the BRI countries, and WIPO aided such cooperation in various ways.

In 2016, WIPO initiated and co-organized with SIPO, the *High-Level Conference on IP for BRI countries* (BRI IP Conference). Francis Gurry, the Director General of WIPO, articulated the position of WIPO to support the BRI. Gurry noted the significance of the close relationship between WIPO and the BRI. He emphasized, "this would ensure coherence in the architecture for the implementation of intellectual property worldwide" (WIPO 2016b). He also encouraged the BRI countries to leverage WIPO tools, including WIPO's global IP services, databases, and participation in IP treaties administered by WIPO (WIPO 2016b).

The "coherence" argument partly revealed a deep concern that WIPO has regarding the geopolitical change in the international IP system. As China is rising as one of the great powers in intellectual property, WIPO must cultivate customer stickiness with China and the BRI countries.

7.2.5 China supported WIPO as a major multilateral IP forum

Maintaining multilateralism in intellectual property has been important for China, in particular when the US played the game of vertical forum-shifting using FTAs, ACTA, and TPP (Sell 2010b). As demonstrated in Chapter 6, China has actively defended TRIPS standards in its FTAs. China diligently implemented the WTO Dispute Settlement Body (DSB) recommendations in the

¹¹ 一带一路 in Chinese, also translated as "One Belt One Road". There are two major components of the initiative. "One belt" refers to the Silk Road Economic Belt and "one road" refers to the 21st century Maritime Silk Road. Swaine (2015) provides a detailed introduction to the BRI in English.

¹² The US geopolitical thinking consists of two trading blocs — trans-Atlantic bloc with Europe, and trans-Pacific bloc with Asia. The US, as the focal point of both trading blocs, negotiated regional trade agreements TTP and TTIP separately with trading partners in each bloc.

US-China WTO dispute¹³ to bring disputed measures into conformity with TRIPS (Scott and Wilkinson 2013).

Multilateralism is also important for WIPO because WIPO's influence was compromised by the US in the 1980s (Sell 2003, Braithwaite and Drahos 2000). Thereafter, the influence of WIPO as a forum for international IP rule-making began to fade. Although China has not yet developed into an international IP rule-maker, the rising market power does provide China with leverage and opportunities in IP regulation (See WAPI case in Chapter 5.3). With the prospect that China will further engage global governance (Chan, Lee, and Chan 2008, Gu, Humphrey, and Messner 2008, Chin and Thakur 2010), China's support is crucial for WIPO to remain an important multilateral IP forum.

China can be seen as having enrolled WIPO into its strategy of gaining more international influence on global IP standards. Shen Changyu, the Commissioner of SIPO, clearly articulated the Chinese position at the WIPO 56th General Assembly: "WIPO should fully play the role as a major platform for international IP rule-making" (SIPO 2016c). Shen's speech signaled China's support for the rejuvenation of WIPO.

7.2.6 Implications

WIPO's support for China's BRI and China's support for WIPO as a major multilateral IP forum can be interpreted as reciprocal coordination (Braithwaite and Drahos 2000), although it is happening not between two states, but between an international organization and a state. A close relationship with China potentially gives WIPO more security as a major forum for IP rule-making and makes it less vulnerable to forum-shifting strategies by other powerful players. WIPO may also expand its reach to the BRI countries by supporting the BRI. For China, WIPO is a forum that China is familiar with. In addition, as the biggest user of PCT and other WIPO-administered treaties, China gains more leverage in WIPO.

7.3 China engages the WTO: first IP proposal and its setback

China's engagement with the WTO has been discussed in the historical review and in every thematic case study in this thesis. Although China was not active in the TRIPS negotiations, the Draft Final Act (1991) was China's baseline to defend US' requirement for higher protection standards (Chapter 2.4.1) In the case of GIs and disclosure obligation, China's proposals at the WTO manifested its classic, pro-development, developing country position. Another well-documented area is China's compliance with the TRIPS dispute settlement procedure (Thomas

¹³ WTO, China — Measures Affecting the Protection and Enforcement of Intellectual Property Rights, WT/DS362.

2017, Gervais 2009a, Yu 2011c, Guan 2014). This section will analyze an under-investigated issue: China's first IP proposal at the WTO.

China submitted its first intellectual property related proposal to the WTO Committee on Technical Barriers to Trade (TBT Committee), proposing the TBT Committee to adopt fair, reasonable and non-discriminatory (FRAND) terms, or reasonable and non-discriminatory (RAND) terms, as a principle in the licensing of standard essential patents (SEPs) to prevent patent hold-up.¹⁴ Although FRAND/RAND have been adopted by various international standard setting organizations (SSOs) and recognized by case law in some jurisdictions, there is no universal interpretation of these terms.

The FRAND/RAND principle benefits licensees, the weaker party in the negotiation of a licensing agreement. Since US companies are mostly technology exporters and licensors in the international market, the US prefers letting the interpretation of FRAND/RAND emerge *ex post* in a dispute. Consequently, a clear meaning for the term is unlikely to emerge in a world of many litigation fora. By contrast, the FRAND/RAND principle is essential for China as a technology importer. After the Chinese DVD industry shrank through the imposition of unreasonably high licensing fees (Chapter 5.2), the Chinese government promoted standardization as a national strategy and began to promote anti-monopoly regulation on the licensing of SEPs, both nationally and internationally. Promoting FRAND/RAND as an international standard at the WTO is part of this agenda.

7.3.1 Process of the WTO IP in standardization proposal

Dr. An Baisheng, the key negotiator for the IP in the standardization proposal has pointed out that developing countries have been the victim of a unilateral standardization process dominated by the US and the EU:

Developed countries tend to be indifferent to the SSOs' behavior that may undermine the productive efficiency of developing countries or require developing countries to accept the international standards they have formulated unilaterally or compel the international society to accept increasingly higher intellectual property standards without mentioning how to restrict the abuse of these intellectual property rights (Liu 2007, 10).

These remarks indicate China's intention to frame IP in standardization as a development related issue and gain support from other developing countries.

¹⁴ Generally, three categories of rules are developed: (1) disclosure rules, requiring certain disclosures of patents or patent applications; (2) negotiation rules, regarding the timing and focus of license negotiations; and (3) licensing rules, governing the level and structure of royalties, most often requiring participants to license essential patents on fair, reasonable and non-discriminatory (FRAND) terms or reasonable and non-discriminatory (RAND) terms (Farrell et al. 2007).

In the fourth triennial review of the Agreement on Technical Barriers to Trade (TBT Agreement)¹⁵ in May 2005, China suggested to the TBT Committee that it include intellectual property in standardization in the Triennial TBT Review among seven other issues.¹⁶ China was the sole proposer of this issue. The Chinese representative emphasized the development element of this proposal, “to strike the right balance between the needs of international standards development and the implementation of adequate and fair protection of intellectual property rights”.¹⁷ He further supported his argument by the fact that the issue of disclosure was not properly addressed by some SSOs and there are no sanctions for IP right holders when they refuse to trade. However, this proposal was questioned by other WTO Members. For instance, Mexico asked for clarification of the proposal because intellectual property was not within the remit of the TBT agreement.¹⁸

China further clarified its position in its submission G/TBT/W/251 to the TBT Committee following the meeting. This submission focused on how the lack of disclosure and the different interpretations of the RAND principle, as prominent problems in the relationship between intellectual property and standardization, have been obstacles to international trade. China recommended that the interpretation of RAND be included in the TBT Triennial Review. By framing intellectual property and standardization as an important development issue, China was trying to shift the forum for interpreting the RAND principle from international SSOs to the WTO TBT Committee.

This submission was supported by Brazil on the basis that patent rights should not constitute an obstacle to development objectives. Mexico again questioned the appropriateness of the TBT Committee as a forum to discuss the issue. Canada and South Korea¹⁹ further questioned how intellectual property in standardization had become an obstacle for Members to adopt international standards and facilitate international trade.²⁰ The US refused to discuss the Chinese proposal at the TBT Triennial Review (Interview No. 29). Without a unanimous consensus on this issue, the Chinese proposal was not included in the TBT triennial review.

¹⁵ Article 15.4 mandates the WTO Committee on Technical Barriers to Trade (TBT Committee) to review the operation and implementation of the TBT Agreement on a triennial basis.

¹⁶ The other seven issues submitted for the Fourth Triennial Review include: (1) Implementation and administration of the Agreement (proposed by the US); (2) Good regulatory practice (proposed by the EC and US); (3) Transparency (proposed by China and the EC); (4) Conformity assessment procedures (proposed by the EC and the US); (5) Technical assistance (Proposed by China and the EC); (6) Special and Differential Treatment (proposed by China); and, (7) Labelling (proposed by the EC). See WTO TBT Committee, *Minutes of the Meeting of 22-23 March 2005*, G/TBT/M/35, May 24, 2005, Para. 74-76.

¹⁷ *Ibid*, Para. 74, G/TBT/M/35. See also An (2005).

¹⁸ See *supra* note no. 16, Para, 78, G/TBT/M/35.

¹⁹ WTO TBT Committee, *Minutes of the Meeting of 2 November 2005*, G/TBT/M/37, Para. 120.

²⁰ WTO TBT Committee, *Minutes of the Meeting of 4 August 2005*, G/TBT/M/36, Para. 102-104.

7.3.2 Forum shifting to APEC

After the triennial review, China tried the Asia-Pacific Economic Cooperation (APEC) as its next venue. The proposal was not further pursued by China because of logistic issues. China could not find a place and time for a meeting that everyone would agree on (interview No. 24).

The logistic issues might have been an excuse when there was no point in pursuing it further. The position of the US was already clear when the Chinese proposal was refused at the WTO. It was not easy for China to gain support from the developing countries in the Asia and Pacific region for this proposal either. Notwithstanding China's framing of IP and standardization as a development issue, it was more a unique problem for China as an emerging economy than a common development problem shared by all developing APEC members. Moreover, APEC was not a key forum for international IP rule-making.

7.3.3 Implications

Though China's efforts at promoting a universal interpretation of the RAND principle did not bear fruit, the proposal indicated China's awareness of active engagement in the multilateral trade system. The trajectory of the proposal showed how China had learned to use the strategy of forum-shifting. The outcome of the proposal revealed the strong veto power of the US and its allies to block a rival standard. In addition, some Chinese government officials were not confident in China's role to promote the proposal even without the US' block. They argued that RAND was a principle initially developed from judicial practices mainly in the US and the EU. China, as an importer of intellectual property, was not equipped with the capacity to explain and justify RAND's judicial steering in a way that could convince the US and the EU that China could responsibly manage the evolution of the proposal.

7.4 China's response to the US-led plurilateral IP agreements

Two US-led agreements, the Anti-Counterfeiting Trade Agreement (ACTA) and the intellectual property chapter in the Trans-Pacific Partnership (TPP) provide opportunities to examine China's response to the process of plurilateralism. This section will first briefly introduce the trend of plurilateral IP treaties as part of the international IP ratchet (Section 7.4.1). It will proceed to compare IP standards in ACTA and TPP with IP standards in Chinese law (Section 7.4.2). Based on findings of the comparison, the Chinese position (official and academic) towards ACTA and TPP will be analyzed in section 7.4.3.

7.4.1 The trend of plurilateralism in international IP rule-making

IP plurilateralism (manifested by ACTA and TPP) started in 2007 as a counteraction to the WIPO Development Agenda adopted by WIPO. The negotiation of both treaties was secret.²¹ This secrecy has been criticised because without proper and timely information it is hard for a third party to influence the negotiation process (Levine 2011, Yu 2011a).

Plurilateral fora often create club standards. Plurilateral IP rule-making only involves a small number of states, which are different from multilateral fora with a larger membership. The small membership makes it easier for great powers to overcome opposition and impose standards (Draho 2002b). Plurilateral IP agreements are also different from bilateral FTAs that are negotiated individually. Once a plurilateral club is established, other states can be persuaded or pressured to join. With the expansion of membership, these agreements gain more legitimacy. However, for the new members that did not participate in the original negotiations, the text of agreements is set. Because of the secrecy in negotiations and the nature of the club standards, plurilateral agreements have been opposed by developing countries and global civil society.

Both ACTA and TPP have encountered a backlash. The EU Parliament rejected ACTA because of opposition from global civil society and unprecedented public concern (Matthews and Žiková 2013, Dür and Mateo 2014, Losey 2014). Specifically, Powell (2012) argues the online activism — including suspended access to websites, notably Wikipedia, blackouts of some website content, as well as mobilization efforts (contacting elected representatives) — contributed to the failure of the domestic US copyright legislation draft²² and eventually defeated ACTA. Soon after his presidency, Trump signed an executive order removing the US from the TPP. After the US' withdrawal from the TPP, most of the IP provisions in the TPP were suspended.²³

Plurilateral agreements or regional agreements form part of the international IP ratchet to increase protection standards (Draho 2002a). Stopping negotiations on IP protection standards is difficult precisely because powerful countries have lots of choices as to forum. The end of ACTA and the withdrawal of the US from the TPP does not mean the game of forum-shifting has ended. However, tracing the life cycle of IP plurilateralism and China's protracted reaction is beyond the scope of this section. Instead, I will only look at China's response, in particular in the 2010 round when there was an expectation that both ACTA and TPP would come into force.

²¹ For details of the negotiations of the ACTA and TPP and the TRIPS-plus standards they were intended to establish, see Ayoob (2010), Weatherall (2010), (Yu 2011a), Kaminski (2011), Bitton (2012), Cossivelou (2017).

²² Stop Online Piracy Act (SOPA) and related Protect Intellectual Property Act (PIPA).

²³ *Trans-Pacific Partnership Ministerial Statement*, 11 November 2017, available at: <http://dfat.gov.au/trade/agreements/not-yet-in-force/tpp-11/news/Documents/ministerial-statement.pdf>.

7.4.2 Comparing Chinese IP law with ACTA and TPP

During the ACTA negotiations, Chinese IP scholars started to compare ACTA and domestic Chinese legislation based on the leaked text accessible through WikiLeaks.²⁴ After detailed comparison in areas of civil remedies, border measures, criminal liability, and international cooperation, these Chinese researchers concluded that the IP standards set in ACTA did not deviate much from the current domestic Chinese law; although there were still gaps between ACTA and Chinese IP law, they did not amount to insurmountable barriers (Cheng 2011, Cui 2011).

Border measures is a case in point. ACTA extended border measures to processes of export and in-transit (Ruse-Khan 2011). China started to enforce border measures for exported goods in 1995. In the China-Peru FTA, border measures are extended to goods-in-transit. In the China-South Korea FTA, the parties agreed to implement border measures for IP protection in “importation, exportation, in transition, placement under a free zone and placement under a bonded warehouse”. This provision provides even higher standards than ACTA (See Chapter 6.4.4 for a detailed discussion).

The TPP set higher IP standards than ACTA. It increased terms for copyright protection to 70 years, extended the subject matter of trademark to include smell marks, and introduced patent linkage and eight years of data exclusivity for biologics. Data exclusivity for biologics not only poses undue obligations on developing members of the TPP but also threatens the general public’s access to medicine (Rimmer 2017, Artecona and Plank-Brumback 2016). Nonetheless, China has agreed to provide a six-year data exclusivity for biologics in its FTA with Switzerland in 2013. Under the MFN principle, such six-year data exclusivity for biologics is now available to all WTO Members (See Chapter 6.4.1). This example shows that there is not a wide gap between TPP standards and China’s IP law.²⁵

It is thirty years since the first IP legislation was promulgated in the PRC, and Chinese legislation and regulations have now reached a high level of IP protection. There are still gaps between the TPP and Chinese legislation, but as Zhang (2016a) has pointed out, China has already or is about to implement the TRIPS-plus standards in the TPP. It is based on the same mindset that led China to accept various TRIPS-plus standards in its FTAs (Chapter 6.4).

ACTA and TPP did create a certain “pressure to join” the club (Drezner 2008), but this pressure was not an international obligation. Clearly, China still had the freedom not to join these

²⁴ The website including ACTA related documents is <https://wikileaks.org/wiki/Category:ACTA>.

²⁵ At the time of writing the US has withdrawn from the TPP. However, it is still worth comparing the TPP standards with China’s existing standards, because China’s existing standards reveal China’s own preferences in intellectual property.

agreements. Should these agreements come into force, they will not threaten China too much because there are only small gaps between these two agreements and Chinese IP law.

7.4.3 Chinese position towards the ACTA and TPP

The above comparisons provide a basis to understand Chinese response to the high IP standards in recent plurilateral agreements. SIPO did a survey on the possible position of China in response to the high IP standards led by the US and the EU. The results of the survey showed China was ready for higher protection standards in some IP issues considering the progress and prospect of Chinese enterprises in these areas (Figure 20). Based on this result, Li and Cui (2015) provide two suggestions. First, China could make a reasonable compromise on some IP issues so as to grasp the opportunity to participate in international negotiations. Secondly, China is still a developing country and so needs to evaluate standards from that perspective.

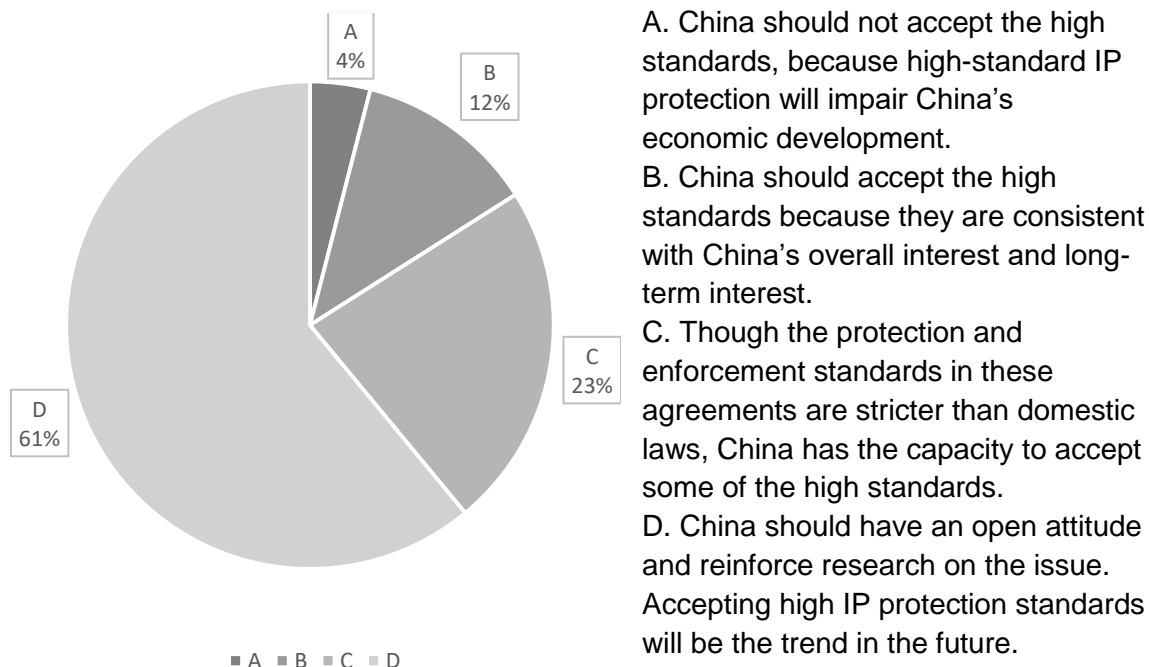


Figure 20 Attitudes to the High IP Standards Led by the US and the EU (ACTA, TPP, TTIP, etc.)²⁶

The Chinese government emphasizes the compatibility of the IP system with its stage of development when formulating IP law and regulations. The functions of the IP system are to

²⁶ This table is translated from Li and Cui (2015). Both authors of the paper are affiliated to MOFCOM. It is worth noticing that this is a second-hand source and the original source of the data is an internal report entitled, *Research on Enhancing International Impact of Intellectual Property* by SIPO. Some details about the survey, for instance, how many samples were collected and whether they were representative are unknown. However, it is still valuable data because it was prepared by SIPO and would be used to advise decision-making.

promote innovation and economic development.²⁷ This basic position, combined with the rapid economic development in China in recent years, underpins the overwhelming responses (C and D in Figure 20) towards the recent US-led plurilateral IP agreements.

Notwithstanding the attitudes from domestic IP experts to take an open and inclusive attitude towards the ACTA and TPP, China officially opposed ACTA at the TRIPS Council, as a developing Member of the WTO. At the TRIPS Council meeting in 2010, China and India, supported by a number of developing countries, firmly resisted ACTA and other plurilateral IP agreements. Both countries argued that ACTA would not only conflict with TRIPS and other WTO agreements and cause legal uncertainty but also undermine the balance of rights, obligations, and flexibilities that were negotiated in the various WTO agreements. ACTA, they argued, would distort trade or create trade barriers and disrupt goods in transit or transshipment (WTO 2010).

The divergent opinions towards ACTA and TPP among Chinese IP experts and the Chinese government implied a certain inconsistency in China's position towards TRIPS-plus standards. This inconsistency was caused by conflicting principles — intellectual property as a tool to stimulate innovation versus intellectual property as an integral part of foreign policy. This inconsistency will be analyzed in the strategy of disassembling (Chapter 10.3.2).

7.5 Intellectual property in China-led regional/plurilateral agendas

In recent years, China has begun to initiate its own plurilateral and regional IP arrangement. These initiatives were made to echo the domestic call for increasing China's "discursive power 话语权 [*huayuquan*]" in international IP rule-making. This section will first introduce this background of a call for increasing discursive power and then examine examples of China's IP arrangement in RCEP, BRICS, and BRI. Despite the domestic demand for increasing China's discursive power being clear and strong, its specific positions in these China-led IP arrangements tend to be obscure.

7.5.1 The demand for China to increase its discursive power in IP rule-making

As China moved to become the second largest economy in the world, there were increasing domestic demands for China to deeply participate in global governance. President Xi articulated this demand when he proposed to disseminate the successful experience of the free trade zones:

The global trade system has undergone a biggest restructure after the Uruguay round in 1994. China is not only an active participant and firm supporter for economic globalization but also an important builder of and a major beneficiary

²⁷ For instance, the 12th Five-year Guideline for Intellectual Property 国家知识产权事业发展“十二五”规划 [*Guogjia Zhishichanquan Shiye Fazhan Shierwu Guihua*] identified the following two principles to promote intellectual property development: “(1) keep promoting the integration of intellectual property and the economy, (2) keep serving the change of economic development mode as the starting point for and the purpose of making intellectual property policies.”

from globalization. We cannot be bystanders and followers; instead, we have to be participants and leaders. We will have China's voice heard in the setting of international standards, have the Chinese characters injected so that we can safeguard and expand Chinese interest in development (Xinhuanet 2014, underlined by the author).

President Xi's call for China to be "participants and leaders" was disseminated to and implemented by government officials at various levels in many areas, including intellectual property. In 2015, China issued the policy aiming to build China as a leading IP power in the world.²⁸ The policy is aimed at enhancing China's engagement in international IP rule-making: "(China should) push forward construction of more fair and reasonable international intellectual rules...and steer international IP rules to a direction that is more generous, inclusive balanced and effective".²⁹

The roadmap to enhance China's role as an international IP rule-maker was further articulated by IP epistemic communities. Li and Cui (2015, 10)³⁰ suggested that "China should actively participate in the new round of restructuring of international IP rule-making, actively export IP values with Chinese characteristics and continuously increase China's discursive power in international IP negotiations". To realize this goal, specific measures were proposed, including: (1) continue to use multilateralism to decide international IP issues; (2) ensure that the plurilateral negotiations remain open and transparent while trying to build alliances; and (3) seek leadership as well as seek a "win-win" situation in FTA negotiations (Li and Cui 2015, 15-16).

In addition, Chen (2016b) proposed that China adopt a defensive posture in response to the current ratcheting up of international IP standards. Chen (2016) also argued that China should represent developing countries in international negotiations. By contrast, Government officials consider discursive power as spreading the best practices of IP protection with Chinese characteristics. For example, Zhou Yong, who works at the Office of National Leading Group on the Fight Against Intellectual Property rights Infringement and Counterfeit (the Anti-counterfeiting Leading Group), commented that the increasing creation, utilisation, and protection of intellectual property in China, recently has produced a deeper understanding and wider recognition of IP protection from international society. China should disseminate its successful experience in its anti-counterfeiting campaign as a "Chinese paradigm for IP protection" (Zhou 2017).

²⁸ State Council issued *Several Opinions on Accelerating Building China as an IP Power under New Conditions*, (Opinions on IP Power Building (2015)), see note no. 4 in Chapter 1.

²⁹ Para. 25, Opinions on IP Power Building (2015). Participation in international intellectual property rule-making is also mentioned in Para. 18 and Para. 28 of Opinions on IP Power Building (2015).

³⁰ Both authors of this article are researchers from a research institute affiliated with the MOFCOM. Among various publications in Chinese on this topic, Li and Cui (2015) provide the most specific and feasible recommendations.

Although the demand for China to increase its discursive power in international IP rule-making has emerged after the Opinions on IP Power Building (2015), the variegated views presented above shows China has not yet had a clear roadmap pertaining how to exert its discursive power. The next section will investigate China's actual IP engagement with RCEP, BRI, and BRICS and the difficulties that it has encountered in promoting these initiatives.

7.5.2 China's engagement in RCEP

RCEP was first initiated by the ASEAN in 2012. The negotiating parties include the ten ASEAN members, and China, India, Japan, South Korea, Australia, and New Zealand. Before the US' withdrawal from TPP, it was considered as China's counterstrategy to the TPP. China was excluded from the TPP negotiations, and the US is excluded from RCEP negotiations. Exclusion of rival states is essential for the major powers included to assume leadership (Azis 2013, Hamanaka 2014). However, TPP and RCEP have seven members in common (See Figure 21). The overlapping membership to a certain extent eased the exclusion pressure, in particular for China.

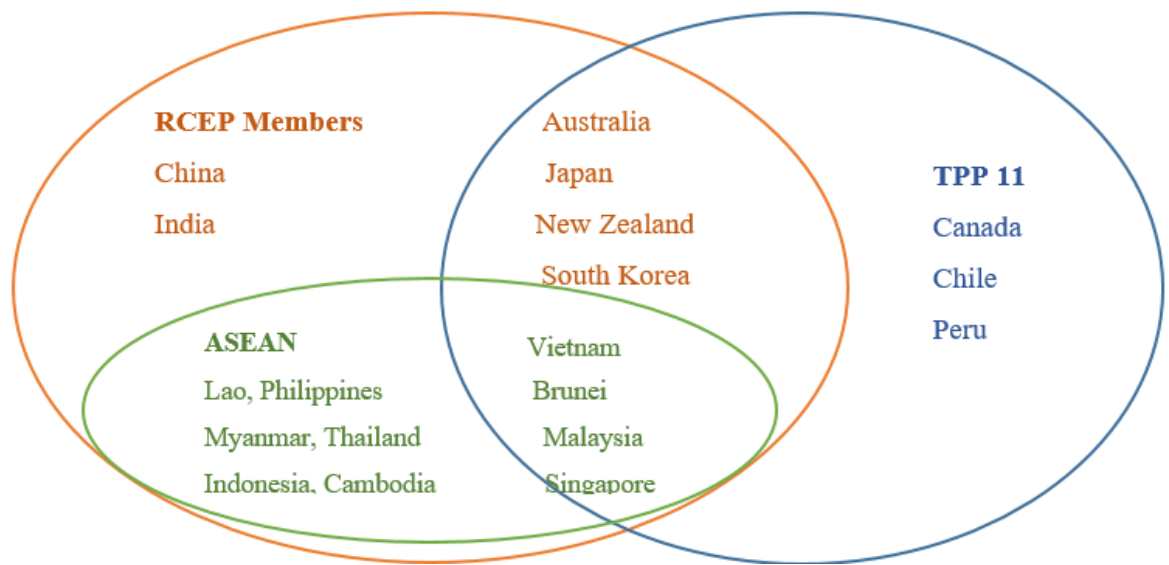


Figure 21 Mapping of ASEAN, TPP and RCEP Membership

After the US withdrew from the TPP, some of the negotiators from both the TPP and RCEP, specifically, Australia and South Korea, advocated for Chinese leadership and deeper commitments to RCEP. RCEP is a mega-regional agreement with 16 states representing some 46% of the world's population and 30% of global GDP in 2016 (Ashton 2017). However, China has not been keen to be seen as a dominant leader in RCEP and has emphasized it is an ASEAN-led agreement. Geng Shuang, the spokesperson for the China Ministry of Foreign Affairs (CMFA), replied to such a proposition as follows:

Neither RCEP nor FTAAP is dominated by China. RCEP is an ASEAN-led regional economic integration and cooperation, and China fully respects the ASEAN's core position and leading role. On this basis, China has cooperated with the parties to negotiate, and actively promoted the negotiation process, to conclude negotiations as soon as possible (CMFA 2016).

After the US withdrawal from the TPP, Japan and South Korea pushed for stronger IP standards³¹ in the 18th round of RCEP negotiations, in May 2017, including extending patent terms and data exclusivity (Geyter 2017). These standards are not acceptable to India and other developing countries involved in the RCEP negotiations. In addition, Médecins Sans Frontières (MSF) called for removing the IP clause from RCEP because almost two-thirds of all the drugs MSF purchases to treat HIV, tuberculosis, and malaria across the world are generic medicines from India. If data exclusivity is introduced into RCEP, the entry of generic medicines will be delayed (The Hindu 2016).

It is difficult to accommodate demands on IP standards in RCEP negotiations. On one end of the spectrum, Japan, South Korea, New Zealand and Australia requested a high level of IP protection, some of which are TRIPS-plus protection; on the other end of the spectrum, India proposed adhering strictly to the TRIPS standards. When it comes to the level of IP protection, China falls in the middle of the spectrum (Section 7.3.2). With the introduction of higher standards of intellectual property in the RCEP negotiations, China will have to come to a decision as to whether to support those standards or whether to side with India's pro-TRIPS standards.

There is a visible tension between China's ambition to be a world leading IP power and the degree to which it actually engages in the RCEP IP negotiations. How China will respond to the draft high standards in RCEP will reveal much about how it sees its IP future.

7.5.3 China and BRICS IP arrangements

After the global financial crisis, the BRICS began to emerge as a new coalition in global governance (Armijo and Roberts 2014). In particular, the BRICS have been active in global financial governance by establishing the BRICS Development Bank (Stuenkel 2013, Cooper and Farooq 2015). The BRICS also began to engage in global energy governance (Downie 2015). Yet in other areas like health, the BRICS are unlikely to be a unified political bloc that will transform global health governance (Tediosi et al. 2016).

Two IP cooperation mechanisms among BRICS have been established: the Heads of Intellectual Property Offices (HIPO) since 2011, and the BRICS IPR Cooperation Mechanism (IPRCM) since

³¹ For a closer review of the intellectual property standards in RCEP, See Yu (2017).

2016. HIPO focuses on technical and substantive cooperation among the patent offices, while IPRCM focuses more on the general coordination of trade-related aspects of IPRs.

According to the *BRICS Intellectual Property Offices Cooperation Roadmap*,³² HIPO will cooperate in examiner training and exchange, patent procedures, promoting public awareness on intellectual property, information exchange, national IP strategy, and position coordination at multilateral fora (SIPO 2018). These areas (except for the last one) are not so different from the agenda for North-South IP cooperation (for instance EU-China IP Cooperation).

China proposed IPRCM in 2011, which was finally established at the eighth BRICS Summit at Goa in October 2016. According to an interview with Zhang Shaogang, the head of the International Department of MOFCOM, “China seeks to use this cooperation mechanism to coordinate IP cooperation with other BRICS countries at both multilateral and plurilateral levels, increase the discursive power and influences of the emerging economies in international IP rule-making, and promote a more balanced, fair and reasonable international IP system” (Zhang and Hu 2016).

So far, it seems that the BRICS countries have had a consensus in making defensive coalitions, but they have not yet had a clear roadmap as to how to undertake active initiatives to reform international IP regulation. The BRICS appear to have a common interest in defending the current multilateral IP regulation through WTO as a response to the US vertical forum-shifting. For example, China, India, and Brazil have stood together at the TRIPS Council to oppose ACTA (See Section 7.3.3).

They face more obstacles in actively promoting an IP standard. Whether BRICS members will actively promote, as a coalition, IP rules that are different from EU or US standards depends on the solidarity of their interests. One possibility is that interests among the BRICS on intellectual property are somewhat fractured due to the different stages of development of these countries. The BRICS have different domestic IP standards and therefore different expectations concerning IP cooperation amongst themselves. For instance, China has already achieved high-level standards of IP protection (See Section 7.3.2), and it has fewer incentives than other BRICS members to promote TRIPS-minus standards at the multilateral level, such as proposing the amendment of Article 27.3 (b) TRIPS to exclude life forms from patenting. Without a unified internal position on intellectual property, cooperation among the BRICS is likely to take a thin form such as information exchange and technical cooperation. The current IPRCM is an example of this thin cooperation.

³² BRICS Heads of IP Offices, *BRICS Intellectual Property Offices Cooperation Roadmap*, Magaliesburg May 2013, available at: <https://www.ip-watch.org/weblog/wp-content/uploads/2013/11/SIGNED-BRICS-IP-OFFICES-COOPERATION-ROADMAP.pdf>.

7.5.4 Intellectual property in the Belt and Road Initiative

From 2013, the BRI has been China's grand strategy to enhance engagement between China and the BRI countries. 65 countries are identified as BRI countries, and they account for 62% of the world's population and 31% of the world's GDP (Emerging Markets Institute 2017). As discussed in Section 7.2.2, WIPO supported China's BRI to consolidate its role as a major multilateral IP forum. This sub-section will look at another aspect of intellectual property in the BRI — cooperation between China and the BRI countries.

Intellectual property was put on the agenda of the BRI because China is the technology exporter in this initiative. Unlike 30 years ago when China imported technologies from the US, Japan, and Germany, Chinese cooperation with the BRI countries is mainly in the area of infrastructure building (transportation, telecommunications, construction, energy and environment) which involves dissemination of Chinese technologies to the BRI countries. From 2014 to 2016, the trading volume between China and the BRI countries topped USD 3 trillion, and cumulative investment from China to the BRI countries exceeded USD 50 billion (Xi 2017). It is in China's interest that these countries have basic institutions for intellectual property so that China's exported technologies can be properly protected. This demand motivates China to focus on IP related capacity building in these countries.

China has not imposed IP standards on these countries. At the *High-Level Conference on IP for BRI Countries* in 2016, a Common Initiative³³ was reached by IP authorities from the BRI countries who participated in the conference. The areas of cooperation areas include the following:

- (1) exchange of experience on IP laws and regulations, policies and strategies;
- (2) enhancement in capacity building;
- (3) cooperation in specific issue areas;
- (4) raise public awareness about intellectual property;
- (5) develop human resources in intellectual property;
- (6) intellectual property information sharing and utilization.

This Common Initiative highlights cooperation and capacity building, without any substantive requirements regarding IP standards. It indicates that China may rely on webs of dialogue, focusing on capacity building to enhance IP protection and awareness in the BRI countries.

China has also signed bilateral IP agreements with the BRI countries. For instance, Uzbekistan and China signed a bilateral agreement on IP protection and cooperation in June 2016 (SIPO

³³ High-Level Conference on Intellectual Property for Countries along the Silk Road Economic Belt and the 21st Century Maritime Silk Road, *Common Initiatives for Strengthening Cooperation between Countries along the "Belt and Road" in the Field of Intellectual Property*, July 27, 2016, available at: http://english.sipo.gov.cn/specialtopic/tbar/headlines/201607/t20160727_1282731.html.

2016b). In this bilateral agreement, both parties are committed to providing mutual and effective IP protection in accordance with the international treaties in which they jointly participate. They also agreed to extend cooperation to areas like personnel training and information exchange.

With the progress of the BRI, some specific proposals for IP cooperation among BRI countries have emerged. For instance, China initiated a three-year special anti-counterfeiting campaign the “Breeze Action 清风行动 [*qingfeng xingdong*]” in 2015 to maintain the good reputation of “Made in China” overseas through border measures on exported goods. This campaign has focused on cracking down on counterfeiting and piracy of products to be exported to Africa, Arabic countries, Latin America and BRI countries.³⁴

These initiatives on technical coordination or cooperation are small steps for China to enhance its IP engagement with the BRI countries. At this stage, a deepening of cooperation around existing standards is all that might be expected. Most of the BRI countries are WTO Members, which means their domestic legislation already complies with the “minimum standards” established by TRIPS. Considering that China advocates “adhering to the TRIPS standards”, it would be inconsistent for China to propose a TRIPS-plus IP standard among the BRI countries. China may think of rule experiment in areas that it has actively promoted in its FTAs, such as the disclosure obligation, geographical indications and the protection of traditional knowledge (see Chapter 6). However, the case studies on the disclosure obligation (Chapter 4) and GIs (Chapter 3) indicate that there is no strong political will in China to push forward with rule-making in these areas.

China has enhanced its IP cooperation with the BRI countries and sought to be a regulatory exporter through capacity building. Nonetheless, it is difficult for China to propose rule-making initiatives with the BRI countries at the WTO.

7.5.5 China in global patent governance— SIPO as an important node

As a result of the surge in patent applications from Chinese residents, since 2011, SIPO has become the biggest patent office in the world (WIPO 2012). It has come to play an increasingly important role in global patent regulation. In addition to representing the Chinese government, SIPO has developed its own transnational networks with its counterparts (patent offices of other states) and international organizations (WIPO and WTO). For instance, SIPO has been one of the

³⁴ General Office of the State Council. *Circular of the State Council on Issuing the Main Tasks of the National Work on Combating Infringement upon Intellectual Property and Manufacture and Sale of Fake or Substandard Commodities* 国务院办公厅关于印发 2015 年全国打击侵犯知识产权和制售假冒伪劣商品工作要点的通知 [*Guowuyuan Bangongting Guanyu Yinfa 2015 Nian Quanguo Daji Qinfan Zhishichanquan he Zhishou Jiamao Weilie Shangpin Gongzuo Yaodian de Tongzhi*] No. 17 (2015).

IP5 (the five largest patent offices) and ID5 (the five largest offices for designs).³⁵ SIPO has also established a patent prosecution highway (PPH) with 19 patent offices in the world.³⁶ The pilot PPH pilot program for IP5 was launched in September 2013 (EPO 2016).

In addition to cooperation in the patent examination with other major patent offices in the world, SIPO began to contribute to discussions around international patent classification (IPC).³⁷ China is a country with distinctive traditional knowledge, in particular in plant pesticides. At the 35th IPC Union Committee of Experts meeting in October 2004, SIPO proposed a detailed classification of botanical pesticides. To persuade others to accept this classification, SIPO skillfully framed its demand as a specific issue in relation to one of the agendas of the meeting: consideration of the need for further development of the IPC in relation to biodiversity. At the meeting, Chinese representatives proposed that technologies in the area of botanical pesticides cover the relevant subject matter relating to “developing new pesticides with biocompatibility”.³⁸ Chinese representatives requested a more detailed patent classification in IPC A01N65/00 in relation to botanical pesticides, in order to facilitate patent document searches in this area. One month later, at the 12th Meeting of the IPC Revision Working Group, SIPO submitted its proposal concerning the detailed classification of IPC “A01N65/00” in relation to plant pesticides, as a solution to the search problem. It took SIPO more than two years to undertake intensive negotiations with patents offices in Germany, Britain, the US, Japan, Europe, Sweden, and WIPO. The proposal, finally adopted by WIPO in 2007, was the first Chinese proposal on IPC (The New Century of Agrochem 2007).

After its first IPC proposal, China participated in six IPC revision projects. For instance, China volunteered as rapporteurs for the WIPO Five-Year Plan for the Revision of the IPC in 2013.³⁹ Among these six revision projects, SIPO played the role of rapporteurs in two projects — C462 (in relation to IPC revision in the field of transmission in electronic communication technique) and C464 (in relation to IPC revision in the field of food or foodstuffs and their preparation or

³⁵ “ID5 is an Industrial design framework comprised of the European Union Intellectual Property Office (EUIPO), the Japan Patent Office(JPO), the Korean Intellectual property office(KIPO), the State Intellectual Property Office of the People’s Republic of China(SIPO) and the United States Patent and Trademark Office(USPTO),” described in the Official website of ID5 <http://id-five.org/>.

³⁶ These include patent offices from Japan, the US, Germany, Russia, Finland, Denmark, Mexico, Austria, South Korea, Poland, Canada, Singapore. Portugal, Spain, UK, Switzerland, Iceland, Israel, Hungary. Data from SIPO website for PPH <http://english.sipo.gov.cn/specialtopic/pph/>.

³⁷ *Strasbourg Agreement establishes the International Patent Classification (IPC)* is the international agreement to harmonized international patent classification. It is one of the WIPO-administered treaties. China joined the Strasbourg Agreement in 1997.

³⁸ WIPO Special Union for the International Patent Classification Committee of Experts, Thirty-Fifth Session, *Classification Tools Relating to Traditional Knowledge and Biodiversity*, IPC/CE/35/7, September 21, 2004.

³⁹ WIPO International Bureau, Project CE 453, *Five-Year Plan for the Revision of the IPC*, February 7, 2013. See Para. 5 for the issue areas to be revised and Para. 11 for the responsibilities of the rapporteurs.

treatment).⁴⁰ Both projects have been completed, and SIPO proposals have been adopted by WIPO (Wu 2016).

These Chinese proposals, however, are not comparable to India's Traditional Knowledge Digital Library (TKDL), a database designed to protect India's centuries-old traditional knowledge.⁴¹ The TKDL played a role in defensive protection within the existing IP protection system by preventing misappropriation of traditional knowledge. From 2009 to 2011, the European Patent Office (EPO) identified 36 patents making use of Indian traditional knowledge by searching this database (WIPO 2011a). The Chinese proposals are complementary to the existing IPC and do not initiate rival standards.

From a nodal governance perspective (Burris, Drahos, and Shearing 2005), SIPO has emerged as a nodal center for global patent governance. Its engagement as a sub-state actor of China will be discussed in detail in Chapter 8.2.2.

The above-mentioned initiatives, whether or not led by China, show that China is socializing itself in the use of IP rules. It is quietly experimenting with international IP regulation by providing technical assistance, training and exchange programs to the BRICS and BRI countries. Though there have been suggestions that China should enhance its rule-making power, it does not take the leadership in the RCEP negotiations. Technical assistance and exchanges in various forms are the most frequently used measures for China to strengthen its IP engagement with these countries. China is treading softly rather than assertively on intellectual property.

7.6 Conclusion

This chapter examined China's IP engagement with WIPO and WTO, its role as a veto power over the US-led plurilateral agreements, and its own regional/plurilateral engagement. Quite a few issues discussed in this chapter have emerged only recently, indicating that China's multilateral and plurilateral IP engagement have intensified in recent years. These ongoing processes also add uncertainty and difficulty to any conclusion on the prospect of China's international IP engagement. This section will summarize the general observations from this chapter and their implications for future discussion.

The most obvious observation is the inconsistency of China's position on the same issue at different fora. China-WIPO engagement aims to cater for the surging Chinese IP applications and to better serve the interest of Chinese IP right holders. China's position at the WTO is the classic

⁴⁰ WIPO Special Union for the International Patent Classification Committee of Experts, Thirty-Fifth Session, *Report*, IPC/CE/45/2, March 22, 2013. See Para. 20 for the list of the projects.

⁴¹ SIPO has developed the Traditional Chinese Medicine Patent Database (TCMPD). See (Liu and Sun 2004). However, the TCMPD is fundamentally different from the TKDL because it is a patent database of the patented traditional Chinese medicine by SIPO, not a database of traditional knowledge itself.

pro-development, developing country position. However, it included TRIPS-plus standards in its FTAs (Chapter 6.4). At the plurilateral level, China quietly exported IP standards (and probably a set of China-specific IP standards) to the BRICS and BRI countries through providing technical assistance. This issue will be further discussed in the disassembling strategy (Chapter 10.3.1)

The second observation relates to the Chinese way of navigating international IP regime complexity. Unlike the US strategy of forum-shifting and new forum creation, China tends to play a multi-fora game, which is more nuanced and refined than either a one-way assimilation to the US-centered liberal order or a collision course with this order. While China advocates its own regional or plurilateral IP arrangements, it simultaneously supports the WIPO and WTO as pillars for IP multilateralism. This is consistent with observations from international financial regulation where “China is not seeking to demolish or exit from current international organizations and multilateral regimes. Instead, it is constructing supplementary — in part complementary, in part competitive — channels for shaping the international order beyond Western claims to leadership” (Heilmann et al. 2014).

The third observation concerns the diversity of attitude among IP regulators and IP experts. Even though the Chinese government opposed ACTA and TPP officially at the TRIPS Council, domestic IP experts took an open and embracing attitude towards the ACTA and TPP. The recent proposal by the CFDA on data exclusivity indicates the embracing attitude towards the tool of exclusivity among Chinese ministries. The stagnation of the EU-China cooperation on GI mutual recognition, however, suggests that MOFCOM has more balls to juggle than intellectual property. The general fragmentation of domestic IP regulation in China has become a web that provides opportunities for individual actors to have influence.

Fourthly, China’s IP arrangement in its own plurilateral initiatives (RCEP, BRICS, and BRI) varies. In RCEP, China does not take on the role of leader, showing little political will to accommodate or deal with polarised opinions among different negotiators. In the BRICS IP arrangements, the BRICS seems to have reached a consensus on making defensive coalitions, but they have not yet collectively proposed any IP rules in the name of the BRICS IPR Cooperation Mechanism. The BRI IP arrangement is basically a network for information exchange and capacity building in the BRI countries. At this stage, it is still too early to predict its impact in international IP regulation.

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Summary of Key Findings from Case Studies

Table 18 below illustrates the key findings from the case studies. There are two dimensions of this matrix:

- (1) whether the US and the EU agree with each other on the international rules of certain issues; and
- (2) the extent to which China has a preference to promote a rival standard.

The first dimension is selected because the US and the EU are the most powerful actors in global intellectual property regulation. When they agree on which direction global intellectual property regulation should take, that is usually the direction it does take. This dimension shows the basic power relations of global regulation on a specific issue. The second dimension explains why China behaves differently in different cases. The behavior of China in different cases is based on the strength of its preference to promote a rival standard. As discussed in Chapter 1, engagement is the concept to operationalize the investigation into whether China is a rule-taker or rule-maker in the international IP system. For China, as a latecomer to the international IP system, the ultimate goal for its international engagement is to promote a rival standard required to achieve its domestic policy objectives.

Table 18 Summary of China's International IP Engagement in Case Studies

		Do the US+EU agree?			
		Yes	No		
Chinese preference to promote a rival standard	Low	TRIPS	GIs		
		US: rule-imposer EU: active promoter CN: rule-importer	Multilateral EU: active promoter CN: ambivalent supporter US: active blocker	Bilateral EU: active promoter CN: active promoter US: active blocker	Domestic CN: modeller
	High	IP and Standardization	Disclosure obligation		
		CN: first-mover and active promoter US: active blocker EU: invisible	Multilateral CN: active promoter EU: ambivalent supporter US: active blocker	Bilateral CN: active promoter EU: invisible US: active blocker	Domestic CN: modeller

Two general observations can be made from the case studies: first, when the US and EU agree (in cases of TRIPS and standardization), there is no space for China to exert influence; secondly, when the US and the EU disagree (in cases of GIs and the disclosure obligation), there is a chance for China to advance various strategies to promote certain principles. TRIPS, by and large, resulted from the compromises between these powerful initiators, in particular, the US and the EU. China was not willing to promote any rival standard, and it was a rule-importer of the TRIPS rules (Chapter 2.4). In the case of the standardization, China attempted to promote a rival WLAN

standard and the US blocked it at every level, inside and outside of China. China ultimately failed in its standardization initiative. Both cases demonstrate that when the hegemonic power of the US is met with support or acquiescence from the EU, China cannot exert influence in the international IP system, even when promoting a rival standard is pivotal to China's national interest. In the case of GIs and the disclosure obligation where the US and the EU held divergent positions on their global governance, China did take advantage of the broader policy space caused by the disagreement to maximize its national interest through various strategies (to be discussed in Chapter 10).

In addition to the cases mentioned in this matrix, I also discussed broader issues where China has interacted with other states and international organizations at the multilateral, plurilateral and bilateral level. These issues include data exclusivity, intellectual property and public health, China's intellectual property cooperation with other BRICS countries and countries along the Belt and Road Initiative, and China's hosting of the diplomatic conference for the WIPO Treaty for Audio-visual Works (also known as Beijing Treaty), etc. These cases will also be discussed in the following sections as they add to the nuances and complexity of China's international IP engagement.

Part Three: Discussion

Chapters 8-10 form the discussion chapters of this thesis, using an analytical framework that has been adapted from Braithwaite and Drahos' work *Global Business Regulation* (Braithwaite and Drahos 2000) (See Chapter 1.6). In this framework, actors, principles, and strategies are the three key elements of analysis. Chapter 8 will focus on the actors involved in China's international IP engagement, with the Chinese state as the focus. The analysis of the state actor is complemented by that of the various sub-state actors involved in determining policy (ministries affiliated with the State Council) and non-state actors (epistemic communities and private actors). Drawing on the case studies, Chapter 9 will identify principles for China's international IP engagement. Chapter 10 will discuss the strategies that China uses to follow the principle of IP instrumentalism, as well as how it manages contestation between different principles. The analysis in these chapters provides the basis for the conclusion of this thesis.

Chapter 8 Who Governs? Actors in China's International IP Engagement

8.1 Introduction

One of the basic assumptions of realist international relations theory is that states are the major actors in international society. Obviously, China is the major actor for the purpose of this thesis. However, focusing on China as a unitary actor is not enough. Looking only at “China” will not reveal what was going on internally, for instance, who represented China in negotiations at various fora, or who built the transnational networks with sub-state actors of other states. Further, an analysis of domestic politics, which may influence China's international IP engagement, is not possible if China is considered only as a unified actor. Based on the case studies in this thesis, this chapter will focus on producing a more detailed analysis of the actors actually involved in China's international engagement. This level of analysis is needed in order to explain, at least partly, the different outcomes of China's engagement in different cases and the different strategies that China has used. Section 8.2 will focus on the role of sub-state actors involved in China's international engagement, and 8.3 on non-state actors including the epistemic communities and private actors. Section 8.4 concludes.

8.2 Sub-state actors

In this thesis, “sub-state actors” refers to ministries affiliated with the central government of China that have a mandate to regulate specific IP issues and can represent China in its international engagement. Table 19 provides a summary of sub-state actors involved in multilateral, plurilateral and bilateral IP engagement in the cases examined in Chapter 3-7. Domestic fora are also included when mentioned in the cases.

Table 19 Sub-state Actors as Representatives for China in International Engagement

Issue area	Fora	Sub-state actors
Geographical indication	WTO TRIPS Council	MOFCOM
	WIPO IGC	SAIC
	Bilateral FTAs	MOFCOM
	EU-China Mutual recognition of GIs	MOFCOM, AQSIQ
	National fora	SAIC, AQSIQ, MOA
Disclosure obligation	CBD and Nagoya Protocol	Ministry of Environmental protection (MEP), MOA, SIPO
	WTO TRIPS Council	MOFCOM
	WIPO IGC	SIPO
	National fora	SIPO
Intellectual Property and Standardization (the WAPI case)	National standard-setting	MIIT, SAC, AQSIQ
	ISO/IEC JCT1 SC6 ¹	SAC
	Bilateral: JCCT	Vice premier of China, MOFCOM
	Domestic implementation	Local Chinese courts and NDRC
IP provisions or chapters in FTAs	Bilateral	MOFCOM
FRAND Proposal	WTO TBT, APEC	MOFCOM, SIPO
Beijing Treaty on Audio-visual Performance	WIPO	NCAC, CMFA, MOFCOM, SAIC, SIPO, LAO, and LAC
Resist ACTA	TRIPS Council	MOFCOM
RCEP IP negotiation	RCEP	MOFCOM
BRICS IP cooperation	Heads of Intellectual Property Offices (HIPO) and BRICS IPR Cooperation Mechanism (IPRCM)	SIPO
Belt and Road IP cooperation	High-Level Conference on Intellectual Property for BRI Countries	SIPO
Patent examination highway	Bilateral	SIPO
International patent classification (IPC) Proposal	WIPO	SIPO
Hague agreement	WIPO	SIPO
Beijing Treaty for audio-visual product	WIPO	NCAC
Patent-related cooperation among powerful patent offices	IP5	SIPO
Intellectual property and public health & Data exclusivity and patent linkage	US-China IP Cooperation Dialogue	CFDA

¹ Joint Technical Committee, Subcommittee 6, of the International Organization for Standardization and the International Electrochemical Commission. This the forum where China proposed its WAPI standard (Chapter 5.3)

MOFCOM, as the trade negotiator for China, has been the ministry most extensively involved in many IP negotiations and other forms of engagement among the 31 IP regulators in China at the central level (see Appendix II).² A number of ministries that regulate a specific IP issue (ministries in charge)³ are also mandated to represent China in international engagement/cooperation on that issue.⁴ Over time, these ministries have developed their own transnational networks. Most prominently, SIPO has already developed into a new node in international patent regulation (Chapter 7.5.5). This section will analyze MOFCOM, SIPO, and rule-implementing actors respectively. The last sub-section will also discuss some missing actors in international IP engagement.

8.2.1 MOFCOM: the checkpoint for China's engagement

MOFCOM functions as the checkpoint for China's international IP engagement. The "checkpoint" metaphor has two meanings: first, China's international engagement, implemented by ministries in charge, is coordinated by MOFCOM; and secondly, if an issue is agreed to by MOFCOM in negotiation, it goes to implementation without a further check.

MOFCOM is the key negotiator on IP issues on almost every front indicated in Table 19. MOFCOM has the resources and capacity to make trade-offs and coordinate with transnational and international actors as the trade negotiator. Intellectual property is one of the many issues that it can juggle with many ministries in charge of developing their international/transnational networks, it is important for China to have MOFCOM to coordinate positions on various fora to best represent China's interests. The GI case shows the importance of this coordination.

Regulated by SAIC, AQSIQ, and MOA in parallel (Chapter 3.3.2), GI regulation in China is a typical example of regulatory competition. All three ministries regulating GIs have developed their own international networks with international IP organizations, or transnational networks with their counterparts from other states (Table 19). In this scenario, where more than one ministry

² In this chapter, I distinguish IP regulators and ministries in charge of IP. The list of members of the State Council Inter-Ministerial Joint Meeting for the Implementation of the National IP Strategy is the authoritative source to identify IP regulators in China (Appendix II). Though IP regulators are primarily ministries in charge of IP, they also include judicial agencies (the Supreme People's Court and the Supreme People's Procuratorate), as well as a department of the Central Military Commission (Central Military Commission Equipment Development Department), and one representative of the civil society (China Council for the Promotion of International Trade).

³ For conciseness, "ministry in charge (of IP)" will be used in this chapter to refer to ministries affiliated with the State Council that have the mandate to regulate a specific IP issue.

⁴ The mandates of every ministry affiliated with the State Council in China are provided by their *Provisions on the Main Mandates, Setup of Internal Bodies and Staffing* 主要职责内设机构和人员编制规定 [zhuyao zhizhe neishe jigou he ren yuan bianzhi guiding]. These provisions are amended regularly during institutional reshuffles 机构改革 [jigou gaige] and can be found at the website of each ministry.

can represent China, a trading partner can choose the most convenient ministry to undertake the negotiation. This forum-shopping can undermine China's bargaining capacity.

In the EU-China bilateral cooperation on GIs, the EU insightfully selected AQSIQ to negotiate the mutual recognition of GIs. As early as October 2006, the EC Directorate-General for Agriculture and Rural Development and the Directorate-General for Trade and AQSIQ agreed on the mutual recognition of GIs, and the two parties nominated ten GIs from each side "10+10" two months later (AQSIQ 2007). In 2007, the EU-China IPR2 project launched, in which MOFCOM began to represent China in the EU-China bilateral GI negotiations. The negotiations with MOFCOM became slower and more complicated for the EU than its previous negotiations with AQSIQ. The "10+10" program took another five years to finalize. Its upgraded version "100+100" ended in stagnancy in the second half of 2017 (Chapter 3.4.3).

The GI case shows that it is easier for a trade partner to make a deal with the ministry in charge than with MOFCOM. By negotiating with AQSIQ, which tended to focus only on GIs, the EU paid nothing. However, MOFCOM negotiates everything related to trade, and intellectual property is only one of these many issues. Simultaneously negotiating many issues with one trade partner enabled MOFCOM to arrange reciprocal coordination (Braithwaite and Drahos 2000). Thus, the EU would have had to have made a concession on another issue in order to make a deal on GIs.

In addition to having a limited capacity when it comes to reciprocal coordination, a ministry in charge tends to make decisions on the basis of technocratic trust built by some of its counterparts (Drahos 2010). The EU and the US have focused on IP related capacity building in China for years. Through exchange and training programs, study tours, and seminars since the 1990s, Chinese IP regulators and IP epistemic communities have been convinced that the EU and US IP systems are "more advanced". As well as technical training, they absorb the norms and values of the training agency, such as the European Patent Office. When the EU and China undertake negotiations on the mutual recognition of GIs, AQSIQ, the Chinese negotiator, genuinely believes that such mutual recognition will benefit Chinese agriculture and export. This trust leads negotiators into detailed discussions regarding the technical issues of implementation, rather than impartially calculating where China's national interest truly lies.

The second dimension of the checkpoint essentially means that the IP compliance game in China is guaranteed — there is no further check once MOFCOM agrees. For example, it took only one year for China to amend its IP legislation to comply with TRIPS (Chapter 2.4.2); after the 2004 JCCT, the implementation of WAPI as a national compulsory standard was indefinitely suspended (Chapter 5.3.1). MOFCOM's assent was fundamental in both these cases.

The checkpoint role of MOFCOM makes it possible for China to implement systematic strategies in its international IP engagement, in particular disassembling (Chapter 10.3.1) and the foreign policy chessboard (Chapter 10.3.3).

8.2.2 SIPO: a new node for international patent regulation

SIPO has been one of the ministries that involved in China's international IP engagement most extensively. First, as China's IP coordinator domestically, it has developed solid networks with WIPO (Chapter 7.2); secondly, it has already developed into a vibrant actor in international patent regulation as a member of IP5, ID5, and through extensive patent prosecution highway (PPH) agreements (Chapter 7.5.5). Thirdly, it is also the key actor in the export of Chinese model IP rules to BRICS and BRI countries (Chapter 7.5.3 and 7.5.4).

As revealed by the case studies, SIPO assumes various important roles, but its capacity is limited, as a ministry in charge, to coordinate issues relating to China's international IP engagement. The bigger coordination role in these issues belongs to MOFCOM. Some of SIPO's initial actions show that SIPO has come closer to the center of the stage in international patent regulation. Its IPC proposal on botanical pesticides reflected China's interest in facilitating relevant patent examinations among WIPO members. Nonetheless, there is potentially an "agent problem" in SIPO's transitional/international IP engagement. With its integration into the international IP (particularly patent) system, SIPO began to identify itself as a somewhat independent actor to promote international IP regulation. Table 19 indicates that SIPO generally takes a pro-IP protection position in its international IP engagement, except in the case of the disclosure obligation. Even in the case of disclosure obligation, SIPO could have taken a more pro-development position like other megadiverse countries (Chapter 4.5).

The recent development of SIPO's IP engagement in fora like BRICS, the BRI and various programs on IP capacity-building in south-eastern Asian countries, signals that SIPO has developed into a regulatory exporter in terms of intellectual property rather than an importer. IP capacity building is necessary because Chinese companies have begun to invest extensively overseas and export their own patented technologies as well. Since this type of engagement has only emerged in the last couple of years, it is still too early to assess its effectiveness. Nonetheless, it is obvious that China does not engage with the BRI countries in the same way that the US engaged China (Chapter 2.4).

From a nodal governance perspective (Burris, Drahos, and Shearing 2005), SIPO has become an important node of global patent governance. However, the global patent governance network is, in essence, a private insider governance network (Drahos 2010, 327). If we examine the role that SIPO has played in the above-mentioned projects, all its efforts have been made to expedite the number of patent applications or to benefit potential right holders as clients of the patent system.

This may help SIPO's position as an influential patent actor in international IP regulation but may not converge with China's national interest as a developing country, nor promote the effective dissemination of technology.

Though recent literature suggests the emerging markets, in particular, China, Brazil, and India, might be a potential force to change world patent order (Abbott, Correa, and Drahos 2013), perhaps by introducing hybrid patent systems (Sell 2013), SIPO has been deeply integrated into the private insider governance network with other big patent offices. It thinks within rather than outside of the international patent paradigm. This level of normative integration will make it harder for China to become a patent regulatory innovator.

8.2.3 Rule-implementing actors: their switching role in the implementation game

Table 19 shows that rule-implementing actors (mainly the courts)⁵ only appeared in the case of standardization, the only arena where China attempted to promote a rival standard. This is not a coincidence. Rule-implementing actors play the role of a switcher in the implementation game, in the sense that they may be able to reverse an outcome through their interpretation of the law. For example, in the standardization case, the owner of WAPI can sue a licensee for patent royalties, and Chinese companies as licensees can sue the licensor for the breach of FRAND. Courts are brought into the game.

There are two preconditions for rule-implementing actors to get involved in international IP engagement. First of all, relevant domestic laws should be in place. The DVD case (Chapter 5.2) showed that without an anti-monopoly law, Chinese courts are likely to end up enforcing the rights of foreign right holders, in the DVD case to collect unreasonably high royalties from Chinese companies. Secondly, a domestic court or other rule-implementing actor needs jurisdiction. This jurisdictional requirement is usually satisfied when civil IP litigation involves "foreign-related civil relations",⁶ in particular when one of the parties is a foreign citizen or a foreign legal person. However, getting involved does not necessarily mean active engagement.

⁵ China has an unusual "administrative enforcement" mechanism for intellectual property which, together with judicial enforcement, is called "double track" 双轨制 [*shuangguizhi*] enforcement (Li 2015b). In this enforcement mechanism, local regulators in charge of intellectual property are also law implementers. Therefore, Chinese rule-implementing actors are not limited to levels of court; they also include IP departments, affiliated with levels of local government, responsible for administrative enforcement.

⁶ "Foreign-related civil relations" are regulated by *Law on the Application of Laws to Foreign-Related Civil Relations of China* 涉外民事关系法律适用法 [*Shewai Minshi Guanxi Falü Shiyong Fa*] (2010). The specific circumstances that may constitute "foreign-related civil relations" are further defined in Article 1, *SPC Interpretations on Several Issues Concerning Application of the Law of Law on the Application of Laws to Foreign-Related Civil Relationships (I)* 最高人民法院关于适用《涉外民事关系法律适用法》若干问题的解释（一） [*Zuigao Renmin Fayuan Guanyu Shiyong Shewai Minshi Guanxi Falü Shiyong Fa Ruogan Wenti de Jieshi (yi)*].

To reveal the role of rule-implementing actors in China's international IP engagement, this section will focus on cases of "judicial activism".⁷

Chinese courts and other rule-implementers began to engage the international IP system from the 1980s. Chinese courts and local IP regulators began to enforce intellectual property rights on the basis of international treaties before IP laws were in place. For instance, the GIs for Danisa and Champagne were first protected in China by local branches of SAIC on the basis of the Paris Convention before any GI legislation was promulgated (Chapter 3.3.1). Another example is *Disney vs Beijing Publishing House* (the Disney case) in 1994.⁸ The court applied the US-China 1992 MOU to adjudicate this case when the grounds for such application were not clear in Chinese law. These early cases of judicial activism aimed at proving that China had an effective system for the protection of (foreign) intellectual property (Jiang 2009).

In the case of standardization, Chinese rule-implementing actors no longer provide favorable super-national treatment on a foreign party. Instead, they tend to look to the goal of stimulating indigenous innovation and assisting Chinese companies to gain technology independence. In the case of *IWNComm vs Sony*, the Beijing Intellectual Property Court ordered Sony to pay treble damages to the IWNComm for the licensing of the SEPs before treble damages were enacted in patent law (Chapter 5.3.4). In the case of *Huawei vs InterDigital Technology Corporation* (InterDigital)⁹ (Zhang and Zhang 2015, Lee 2016), Shenzhen Intermedium People's Court creatively decided on the principle of fair, reasonable, and non-discriminatory (FRAND). At the time the decision was made, this principle has not yet been incorporated explicitly into Chinese law.

⁷ It means courts and local IP regulators creatively interpret laws, and (1) apply rules when they are not yet codified as laws, or (2) decide differently from what the law stipulates.

⁸ In this case, Disney had licenced its copyright in Chinese publications to Maxwell, and Maxwell agreed not to license the right to a third party. When Maxwell breached the agreement with Disney and licenced the copyright to a third-party Beijing Publishing House, Disney only sued Beijing Publishing House for copyright infringement. The licensing agreement between Maxwell and Beijing Publishing House was signed before the US-China bilateral MOU (1992) which included a clause on reciprocal protection of copyright. That meant at the time that infringement happened, China was not yet committed to protect copyright of US residents. The court nonetheless applied the US-China bilateral MOU (1992) directly, and confirmed the existence of copyright infringement and ordered Beijing Publishing House to pay damages to Disney. See *The Walt Disney Company, US v. Beijing Publishing House etc. (Copyright Infringement Dispute)* 美国沃尔特·迪斯尼公司诉北京出版社等侵犯著作权纠纷案 [Meiguo Woerte Disini Gongsi Su Beijing Chubanshe Deng Qinfan Zhuzuoquan Jiufen An], Beijing Intermediate People's Court Decision No.141, 中经知初字第 141 号 [Zhongjing Chuizi 141 Hao] (1994), available at SPC Gazette 最高人民法院公报 [Zuigao Renmin Fayuan Gongbao] 1996 (4).

⁹ *Huawei Tech. Co. v. InterDigital Communications, Inc. (Huawei v. IDC)* 华为技术有限公司诉交互数字通信有限公司 [Huawei Jishu Youxian Gongsi Su Jiaohu Shuzi Tongxin Youxian Gongsi], Shenzhen Intermediate People's Court, No 858 深中法知民初字第 858 号 [Shen Zhongfa Zhi Min Chuizi 858] (2011). For decision of the second instance, see Guangdong High People's Court No. 305 粤高法民三终字 305 号 [Yue Gao Fa Min San Zhong Zi 305 Hao] (2013).

Standard essential patents (SEPs) and FRAND have been areas in which judicial activism has frequently appeared (Wang 2017b). Considering some of the standards involved have a global scope, these decisions have significant impacts. Nonetheless, the leverage of the market should not be ignored. Though domestic courts in every state can have long-arm jurisdiction over foreign-related cases, only powerful players can use it effectively. Currently, China had 772 million netizens by the end of 2017; 97.5% Chinese netizens access the internet by mobile phones (China Internet Network Information Center 2018). No company in the telecommunication industry can afford to ignore domestic regulation or a court decision and remain in the Chinese market: Apple had WAPI installed one year after China's tie-in policy in 2009 and Qualcomm paid a USD 975 million fine to the NDRC (Chapter 5.2.3).

The function of rule-implementation actors and instances of judicial activism should not be confined to a specific case and isolated from the bigger picture of competitiveness among companies and nation states. Instead, they should be considered as part of China's national strategy of technology catch-up, specifically cultivating indigenous innovation and improving the core competitiveness of Chinese companies. This orientation has been clearly articulated by a SPC opinion in 2009, which mandated the various levels of domestic courts in China to "raise the sense of crisis, hardship, big thinking and overall thinking, and pay more attention to expanding the space for innovation, promoting the cultivation of indigenous intellectual property, local brands and new economic growth areas, and enhancing the market competitiveness of enterprises and raising the core competitiveness of China."¹⁰

Through judicial activism, rule-implementing actors have reinterpreted the rules and occasionally created rules concerning standardization in the telecommunications industry. Chinese rule-implementing actors intend to switch the effects of rules to positive outcomes in the implementation game. This "switching" role, however, should not be interpreted as arbitrary and capricious, nor as an embodiment of nationalism. Instead, this switching role manifests the resistance of China at the implementation stage to the US' blocking China's attempts to define standards that better suit its own companies.

8.2.4 The missing actors in developing potential engagement

Chinese sub-state actors represent China in the international IP system when they are mandated to do so.¹¹ In cases of domestic regulatory competition, the ministries in charge are often

¹⁰ SPC *Opinion on Several Issues Concerning (Using) Intellectual Property Trials to Serve the Overall Objective under the Current Economic Situation* 最高人民法院关于当前经济形势下知识产权审判服务大局若干问题的意见 [Zuigao Renmin Fayuan Guanyu Dangqian Jingji Xingshixia Zhishichanquan Shenpan Fuwu Daju Ruogan Wenti de Yijian], No. 23 (2009) 法发 (2009) 23 号 [Fafa (2009) 23 Hao].

¹¹ See *supra* note 4.

motivated in their international engagement by a desire to consolidate their regulatory legitimacy (e.g. AQSIQ in regulating GIs). However, in other cases, one can observe a phenomenon of regulatory neglect where sub-state actors (which one might have expected to be involved) are missing from potential engagement.

Regulatory neglect refers to the situation where a ministry in charge could engage as a representative for China concerning an IP issue, but it does not do so because formally (1) other ministry/ministries share the regulatory power or (2) the international engagement on that issue is not clearly mandated. The deeper reason for cases of regulatory neglect, however, lies in a reticence to be involved in an issue of tangled interests (Chapter 10.3.2). Since regulatory neglect presents as inaction, it is difficult to assess as a case.

China's international engagement in the area of disclosure obligation may be considered as a case of regulatory neglect, in particular, China's role in the Nagoya Protocol negotiation. Xue Dayuan, one of the experts advising on China's negotiation of the *Nagoya Protocol*,¹² pointed out that the lack of coordination, communication and mutual support among various ministries in China is a crucial problem in genetic resources regulation (Xue and Cai 2009b, Xue 2015). This is a case of regulatory neglect because of shared regulatory power — the Chinese delegation on the *Nagoya Protocol* was led by the Ministry of Environmental Protection. SIPO as a member of the delegation was not active in promoting the issue of the disclosure obligation.¹³ The *Patent Law* (2008) on the protection of genetic resources incorporates a "linkage" (Chapter 4.4.1), which authorizes other laws and regulations to define circumstances of violation relating to the protection of genetic resources. This can be considered as an instance of regulatory neglect — SIPO, as the patent regulator nominated by the patent law, has shirked its regulatory power, leaving this complex matter to other relevant ministries.

Regulatory neglect could provide a plausible explanation for China's comparative lack of active engagement on intellectual property and human rights (in particular public health and access to medicine) and the protection of genetic resources and traditional knowledge. This lack of engagement is essentially an outcome of domestic politics. It not only happens at the stage of rule-making but also rule-implementation — no compulsory license has been issued in China since the relevant law was promulgated in 2003 as an implementation of the *Doha Declaration on TRIPS and Public Health*. Regulatory neglect among sub-state actors is related to the strategy of reticence. Together, they make China a state that fails to act as much as it could on intellectual property given its economic power.

¹² Professor Xue has participated in the whole process of the Nagoya Protocol negotiations as advisors for the Chinese negotiators, see <http://www.nipso.cn/oneas.asp?id=18655>.

¹³ This information was from a refusal to my interview invite.

8.2.5 Discussion

Among the sub-state actors involved in China's international IP engagement, this section has highlighted MOFCOM, SIPO, rule-implementing actors and some missing actors. The coordination (and the lack of coordination) among these sub-state actors, as well as regulatory competition and regulatory neglect, directly impact on their international IP engagement and contribute to China's international IP engagement. Externally, the technocratic trust built through participation in transitional networks also influences the positions of ministries in charge.

In summary, the checkpoint role of MOFCOM emphasizes its capacity to arrange reciprocal coordination. The nodal governance analysis of SIPO focuses on the risk that when sub-state actors identify themselves as an independent node in the global governance of an issue for which they have official carriage, they may focus on their own nodal power and status rather than representing the best interests of China. Rule-implementing actors in China have begun, where necessary, to switch outcomes in the implementation game, assisted by China's increasing economic power. Some sub-state actors do not engage as much as they could on IP issues, a case of regulatory neglect.

8.3 Non-state actors

Two types of non-state actors have been involved in China's international IP engagement — IP epistemic communities and Chinese companies. Different from the sub-state actors, their engagement does not represent the position of the Chinese government.

8.3.1 Chinese IP epistemic communities

The epistemic community concept refers to networks of professionals with recognized expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain or issue-area (Haas 1992). Though the IP system has been a recent phenomenon in China, there has been a dramatic growth in epistemic communities in the area of intellectual property. Chinese IP epistemic communities (mainly trained by IP lawyers) have been building networks and endeavoring to disseminate a view of intellectual property that places the emphasis on the exclusivity of rights, rather than public interest.

IP epistemic communities play a critical role in the strategy of modeling (Chapter 10.2) which is the key strategy for diffusing intellectual property in China. The study and absorption of models rely on epistemic communities made up of technical experts of various kinds who study, adapt and finally adopt models presented by foreign experts. For instance, WIPO and the EU have regularly seconded expert advisors to help with the amendment of IP legislation in China (Chapter 7.2 and Chapter 2.4.2). Chinese patent examiners, IP judges, and other technocrats, as well as

university professors, have also been dispatched to study the IP systems of other states. The destinations for these exchange programs are mainly the US and the EU.

Because the composition of the IP epistemic communities is heterogeneous and the function of different communities varies, these communities are divided into two layers: (1) IP elites and (2) IP practitioners. Their relationship can be thought of as a “ripple,” where IP elites are located in the center as opinion leaders and IP practitioners on the periphery. This section will focus on their role in transnational networks and how such transnational networks influence their position and further Chinese policymaking.

8.3.1.1 Intellectual property elites

The term “IP elites” in China refers to celebrated IP academics and retired high-level government officials. Among all IP epistemic communities, they are one of the few that can influence law and policy making. For instance, Professor Liu Chuntian, the Dean of Intellectual Property Academy Renmin University (IPARU) was named one of the World’s 50 Most Influential People in IP in 2014 in the category of policymakers. As stated by the official website of the Renmin University, “Professor Liu is the only academic who is listed in the category of policymakers. This... reflected the recognition of international society of the special role played by Chinese academics in the development of China” (RUC News 2014). Professor Liu Chuntian is also the Chinese coordinator of the US-China IP Cooperation Dialogue. Co-organized by the Renmin University Intellectual Property Academy of China (under Liu’s lead) and the US Chamber of Commerce, the dialogue is composed of ten IP experts (Sun 2016a).¹⁴ The US-China IP Cooperation Dialogue has developed into an important informal forum for the US to influence Chinese thinking concerning IP issues and this can be more successful than formal fora. The US’s influence on particular issues, such as patent linkage, can be found in the periodic publication, the *US-China IP Cooperation Dialogue* (US-China IP Cooperation Dialogue 2013, 2014-2015, 2016).

Patent linkage and data exclusivity are two examples of US influence. The *US-China IP Cooperation Dialogue (2014-2015)* first claims that China’s potential for innovation in the pharmaceutical industry was hampered by its current IP protection regimes and recommended that China “improve the patent linkage system and provide effective protection for clinical data of new chemical entities by using the ongoing effort to amend the Patent Law and the Drug Administration Law.”¹⁵ In the conference to launch the *US-China IP Cooperation Dialogue* (2016), the US and Chinese experts who drafted the report again advocated for a patent linkage

¹⁴ The team of experts includes five experts from each country. They consist of government officials, business experts, judges, lawyers and academics. Profiles of the experts are available at: <http://www.theglobalipcenter.com/dialogue/>.

¹⁵ US-China IP Cooperation Dialogue Report (2014-2015), p. 2.

scheme in China (Zhang 2017c).¹⁶ Cheng Yongshun, former judge of the Beijing People's High Court and one of the Chinese experts in the US-China IP Cooperation Dialogue, held symposiums to promote patent linkage in China,¹⁷ arguing that patent linkage mechanism would be a win-win system for China (Cheng and Wu 2018). In 2017, China Food and Drug Administration (CFDA) proposed a patent linkage mechanism¹⁸ similar to the US *Drug Price Competition and Patent Term Restoration Act of 1984*. In addition, CFDA also proposed up to ten years data exclusivity for biologics, orphan drugs, and original drugs for children (Cheng 2017).

Though the causal links between the *US-China IP Cooperation Dialogue Report* and the CFDA call for comments are hard to verify, several issues are clear. First, the US is motivated to influence China through this forum. Increasingly the US resorts to webs of dialogue to influence China (Chapter 2.4.2) and the US Chamber of Commerce has been an important part of these webs (McGregor 2010). Secondly, these reports were submitted to high-level officials in the Chinese government. Thirdly, IP elites as opinion leaders have produced academic publications, the policy recommendations from which may further influence decision making. Last but not least, IP elites can have access to policymakers through the revolving door or through their academic reputation.

8.3.1.2 Intellectual property practitioners

IP practitioners form a rising IP epistemic community, which includes mainly technocrats, IP lawyers, and patent agents. The recent patenting surge in China, as well as a series of policies to develop the IP service industry in China, has also stimulated the expansion of IP intermediaries. According to Liu Jufang, the Deputy Director of Planning and Development Department of SIPO, China had over 31,000 IP agencies with over 600,000 employees by 2014 (Liu 2015a). Statistics from the All-China Patent Attorneys Association indicates there were 1442 registered patent

¹⁶ This report launching conference was simulcasted live and attracted a real time audience of 30,000 and total audience of 60,000. Though the simulcast has finished, the number of the accumulative audience is still indicated at the webpage

<http://i.ifeng.com/ifenglive?liveId=106004&vt=5&from=singlemessage&isappinstalled=0>.

¹⁷ Beijing Intellectual Property Institute 北京务实知识产权发展中心 [Beijing Wushi Zhishichanquan Fazhan Zhongxin] 2016, *Pharmaceutical Patent Link System Salon* “药品专利链接制度沙龙”简报 [yaopin zhuanli lianjie zhidu shalong], <http://www.bipi.org/index.php/2014-04-01-06-02-54/93-2014-04-01-06-38-14/644-news2016070501>.

¹⁸ China Food and Drug Administration (CFDA) 中国食品药品监管总局 [Shipin Yaopin Jianguan Zongju], Notice of Calling for Comments on “Policies Related to Encouraging Innovations in Pharmaceuticals and Medical Equipment and Protecting Interests and rights of innovators (Draft for Comments) 关于鼓励药品医疗器械创新保护创新者权益的相关政策（征求意见稿） [Guanyu Guli Yaopin Yiliao Qixie Chuangxin Baohu Chuangxinzhe Quanyi de Xiangguan zzhengce (Zhengqiu Yijiangao)], No. 55, May 12, 2017, http://www.gov.cn/xinwen/2017-05/12/content_5193269.htm.

agents and 15,660 qualified patent attorneys in China as of May 2017.¹⁹ The IP service industry, as its name suggests, provides services to IP right holders.

The IP practitioners are located on the periphery of the “ripple” of the Chinese IP epistemic communities. Messages from IP elites are disseminated to them so that a uniform acknowledgment of the importance of intellectual property is shared among them. This dissemination is exemplified by the 30,000 people who watched the simulcast of the *US-China Intellectual Property Cooperation Dialogue* (2016) in real time.

Various transnational networks have also been established directly between IP practitioners and their counterparts in the US or the EU. For instance, starting in 1994, SIPO began to select and send its employees as visiting scholars to John Marshall Law School in the US. After 20 years, over 400 individuals from SIPO have participated in this program (Zhang 2013b). As pointed out by Tian Lipu, the then Commissioner of SIPO, at the 20th anniversary of the SIPO-John Marshall cooperation: “those who once attended the John Marshall program now become departmental leaders and backbones of SIPO. Such programs help develop technical ties across time and culture. When problems arise those trained in the US will likely look to how the US has addressed the problem.”

In addition to the official channels, Chinese lawyers are also keen to enhance their status by having an LL.M. degree from US law schools with a New York Bar admission. After they return to China, they can bill their clients as US lawyers and raise their incomes dramatically or assume pivotal positions in Chinese start-up companies. IP lawyers are part of this trend. When they go back to China, they spread not only IP norms, but US specific IP norms into the Chinese IP system.

Though the number of IP practitioners is large, this community is narrowly constituted, being mainly made up of those legally trained in IP law and dedicated to maximizing the interests of IP right holders. They rarely critically question whether the extension of IP rights really does promote innovation that is in the public interest.

As one effect of the modeling strategy, Chinese IP epistemic communities have established their own transnational networks with their counterparts exclusively from developed countries. Through such transnational networks, the innovation stimulation theory (Chapter 9.2.1) has been rooted in Chinese IP epistemic communities and accepted as factually correct.

¹⁹ Statistics from All China Patent Attorneys Association, see <http://www.acpaa.cn/>, accessed on May 18, 2017.

8.3.2 Private actors

Private actors, in particular the multinational corporations (MNCs), have already developed into important nodes in international IP regulation (Tusikov 2016). In the case of standardization (Chapter 5.2), Intel developed sophisticated strategies to launch Wi-Fi-enabled personal computers into the Chinese market, formed strategies of coalition building, threatened embargos, lobbied the US government, and manipulated the IEEE. Other less powerful MNCs have also attempted to pressure the Chinese government through their national or regional industrial associations. For instance, AmCham China represented high-tech MNCs doing business in China. It questioned China's indigenous innovation policies (Chapter 2.4.3), helped to place those policies on the negotiating table of the JCCT, and played a role in stalling the implementation of these policies.²⁰

Most Chinese companies are still located in the middle of global value chains and they are dependent on MNCs (Chapter 5.2.2). Nonetheless, some Chinese companies have begun to establish themselves at the summit of the patent world. For instance, ZTE and Huawei have become two of the top PCT patent applicants worldwide. They have developed exponentially in the past few years, benefiting from the huge size of the domestic market in China.

In the case of IP and standardization, one can see there are two paths for Chinese companies to obtain supportive regulation. First is through the ministries in charge. For instance, the Ministry of Industry and Information Technology (MIIT) supported the tie-in strategy of the WAPI alliance by requiring every mobile phone to be WAPI-installed in order to enter the Chinese market (Chapter 5.3.3). However, such reliance on the Chinese government has been criticised as a black-box operation. A fatal flaw for WAPI was the lack of transparency concerning its algorithm, implying that it was considered a state secret. This close connection to the state turned WAPI into an example of the supposed technological nationalism of China (Suttmeier and Yao 2004, Suttmeier, Yao, and Tan 2006). The Chinese government and Chinese companies learned from the WAPI case. Later, China did not exclude foreign companies from getting involved in developing the 4G standard. MNCs like Qualcomm came on board and the standard development process became more transparent. In this way, China further integrated into the global ecosystem of developing telecommunication standards (Higgins 2015).

The second path for supportive regulation is initiating litigation or anti-monopoly investigations against MNCs. This means that Chinese companies have to resort to courts as rule-implementing actors, in particular when the MNCs breach the FRAND principle in the Chinese market. Large Chinese companies are also more active in initiating legal action in other jurisdictions. As the

²⁰ China suspended the implementation of its indigenous innovation policy in 2011.

various markets in China mature both in size and in the sophistication of the Chinese players, the role of rule-implementing actors becomes greater. The telecommunications sector in China is an obvious case of this maturing process.

8.4 Summary

This chapter analyzed various sub-state actors and non-state actors which appeared in the case studies. Regulatory competition and regulatory neglect are useful concepts to understand the dynamics among sub-state actors and China's international IP engagement in general.

The discussion of actors cannot be isolated from principles and strategies. Most ministries in charge of intellectual property and IP epistemic communities have developed transnational networks with their counterparts in the US and EU, absorbing various legal approaches and ideas about intellectual property, especially the innovation stimulation theory. As IP regulators, they have developed policies favoring IP right holders. On the other hand, while China's trading partners (EU in the case of GIs) have selected the most accommodating ministry to negotiate a deal concerning intellectual property, MOFCOM functions as the checkpoint through reciprocal coordination of a much broader range of issues than just intellectual property. In addition, Chinese rule-implementing actors have also become increasingly involved in IP issues, meaning that high technology markets like telecoms are full of complex contestation. A degree of judicial activism has produced benefits for Chinese companies in the market.

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Chapter 9 Principles for China's International IP Engagement

9.1 Introduction

This chapter will focus on the principles that guide and sometimes constrain China's international IP engagement. Generally, two sets of principles are identified in this chapter — one concerning the logic of intellectual property, and the other concerning the logic of China's international engagement. Both sets of principles are drawn from the data examining China's behavior as outlined in the case studies (Chapters 3-7). The foreign policy principles to be discussed in this chapter have been officially identified by the Chinese government as guiding principles, but some of the IP principles are more implicit behavioral guides shared by the sub-state actors and IP epistemic communities. In this chapter, I will use the word "China" when a principle is generally agreed to by all the sub-state actors. Otherwise, I will refer to names of the sub-state actors (often ministries in charge of a specific IP issue) when they directly follow a principle.

This chapter will identify specific lower-level principles guiding China's international IP engagement. Principles of an international IP system *per se* have already been established and embedded by IP treaties over the last one and half centuries. Some issues relating to specific principles have also been discussed in the case studies in this thesis, an example being the case of the disclosure obligation, where the principle of considering genetic resources as the "common heritage of mankind" was contrasted with the principle that these resources are governed by "state sovereignty". In addition, higher-level principles commonly exist in China's foreign policy agenda like "pragmatism" or "rationalism". These general principles will not be discussed in this chapter for two reasons. First, these principles have already been sufficiently discussed in the literature and are neither special to China nor special to intellectual property. Secondly, if the principles are not sufficiently specific, it will be difficult to identify interactions and tensions among different principles and the discussion on strategies in the next chapter will be groundless.

Section 9.2 will examine IP instrumentalism as the logic of intellectual property. Section 9.3 will focus on the foreign policy agenda as the logic of China's international engagement. Section 9.4 will follow up the evolution of the principles, in particular, their development in recent years. Section 9.4 summarizes the chapter.

9.2 The logic of intellectual property: IP instrumentalism

China established a proprietary system for knowledge that recognizes certain intellectual outcomes as a type of property, similar to the western IP system. However, China's configuration of intellectual property is mainly instrumental, which means the value of intellectual property lies

not in the system itself, but in its complementary function to other goals of China. Intellectual property is not grounded in a tradition of private property, or property rights, or the rule of law. In China, intellectual property is dominated by a “means-to-ends” way of thinking.

There are two primary reasons for the emphasis on the instrumental value of intellectual property in China. First, instrumentalism is the primary justification for establishing and maintaining the Chinese IP system. Intellectual property was first introduced to contemporary China because of the US’ trade coercion. Initially, the feasibility of the IP system in China was not justified on the basis of property rights and individual entitlement. The proprietorial nature of intellectual property was fiercely criticized by the Ministry of Machinery Industry in the early 1980s because it was incompatible with socialist institutions (Chapter 2.3.2). The IP system survived in China because of its instrumental value. Establishing an IP system was a prerequisite for reciprocal coordination with the US and other developed countries, the payoff being that these countries would release restrictions on their exports of high-technology to China or increase their foreign direct investments (FDI) in China. In the post-TRIPS era, the instrumental value of intellectual property in China has changed to serve domestic goals, including to stimulate innovation and promote economic growth.

Secondly, the theories of IP instrumentalism were imported from the West to China. In the US-China bilateral IP negotiations, US negotiators framed China as a born pirate (Chapter 2.5) and threatened China with unilateral trade retaliation. This antagonistic approach which imposed IP rules on China met with a counter-retaliation from China (Chapter 2.4.1). Gradually, the model missionaries and model mercenaries (Braithwaite and Drahos 2000) relied more on webs of dialogue, intentionally framing intellectual property as the means to promote innovation. This re-framing emphasized the instrumental value of intellectual property, which matched China’s enthusiasm for developing science and technology and achieve technology catch-up.

In general, under IP instrumentalism the purpose of intellectual property should be to serve the “big picture”.¹ One excerpt of Deng Xiaoping’s speech shows that there are predominantly two

¹ There are several interpretations for Chinese characters “大局”. Literally, it can be translated into the “grand chessboard” because the word “局” is often related to the chess game. More implicitly, the term can also be translated into “overall view” because the current use of the term emphasizes the strategic vision derived from the chess game. I translated this term as *big picture* in this thesis, in order to grasp both its explicit and implicit meaning.

big pictures for China, one domestic and the other international.² Xi Jinping, the Chinese President, has interpreted the big picture as follows:

Colleagues from different departments should command a sense of the big picture. Before proposing an important reformative agenda, one should first consider whether this agenda will serve the big picture and whether it is conducive to the long-term development of the Party and the State. One should sincerely look forward, think ahead and plan ahead (Xi 2013).

This extract provides two dimensions of the big picture: the long-term interest and overall interest of the Party and the Chinese State.

The requirement that intellectual property should serve China's big picture constitutes a unique characteristic of the Chinese IP system in an authoritarian state compared with a democratic one. To a certain extent, it does not matter what constitutes the big picture as who can decide its elements. From this perspective, enhancing the sense of the big picture is a way to reinforce centralization. Therefore, serving and sometimes sacrificing for the big picture as drawn by the Chinese government is the ultimate goal for IP instrumentalism.

Specifically, there are three dimensions as to how IP instrumentalism works in China. The three specific goals for the Chinese IP system at the current stage of development are as follows:

- (1) The IP system should stimulate innovation;
- (2) The IP system should serve Chinese economic transformation; and
- (3) The IP system should be consistent with the overall foreign policy agenda.

9.2.1 The innovation stimulation theory

As analyzed by (Drahos 1995), there are four different philosophical foundations for thinking about intellectual property. Innovation stimulation is one of them. Though it is widely recognized as a justification for the IP system, it has drawbacks in its operationalization. First, it does not provide a detailed correlation between intellectual property and innovation: is it a linear relation that stronger intellectual property will inevitably stimulate more innovation? If not, what is the optimal level of intellectual property protection (Gangopadhyay and Mondal 2012, Chu, Cozzi, and Galli 2014)? What are the factors that could determine this optimal level? Secondly, the innovation stimulation theory does not differentiate between types of intellectual property in terms of their contribution to innovation. Thirdly, this theory does not consider the differences

² Deng's discussion on the two big pictures was first proposed in 1985. The objective for the international big picture is to maintain a peaceful world, and the objective for the domestic big picture is to achieve China's development. Deng argues that the two big pictures are mutually conducive to each other. The two big pictures have been considered as the essence of his diplomatic thinking, see Zhang and Liu (2006). After four decades, this diplomatic thinking is still being used as a basis for China to participate in global governance (Zhang 2016b).

among the industries in which the IP system functions. In addition to the operationalization problem, the innovation stimulation theory does not provide a solution to patent hold-up created by exclusive rights for the diffusion of knowledge. Practically, the innovation stimulation theory tends to benefit the right holders but ignore the public interest (Drahos 2010). Once adopted as a principle for policy making the innovation stimulation theory tends to favor right holders.

This innovation stimulation theory was disseminated in China in parallel with its regulatory importation of the IP system (Chapter 2), taking root and becoming the fundamental theory of intellectual property. Ultimately, China assimilated the innovation stimulation theory notwithstanding its theoretical and practical problems. The innovation stimulation theory further developed in China along two dimensions:

- (1) The IP system provides incentives for innovation;
- (2) The IP system is indirectly instrumental to China's grand strategy of technology catch-up.

The first dimension is consistent with the original explanation of the innovation stimulation theory in the western world, while the second dimension is a further derivative of the theory to fit into the Chinese context. The basic thesis of the innovation stimulation theory is that intellectual property promotes innovation by incentivizing investment in knowledge-based assets. Since a proprietary right is granted to the creator of knowledge, the process of investing in innovation can be made profitable for individuals using the IP system. In this way, intellectual property will add the fuel of interest to the fire of genius.

The innovation stimulation theory has been the foundation for the recent national IP agenda in China. The National IP Strategy in 2008 was a milestone, showing how the innovation stimulation theory had taken hold in China (Chapter 2.4.3).³ The *National IP Strategy*, first initiated by SIPO, clarified the priority of the IP system. The prioritized position of intellectual property on the national agenda further generates pressure on various levels of local government in China for compliance with the goals of the national strategy (Cheng and Drahos 2018).

³ Before 2008, the balancing theory has also been influential. For instance, in 2003, Professor Xu Xuan published a paper *Justification of intellectual property: the consideration and equity in intellectual property law* 知识产权的正当性: 论知识产权法中的对价与衡平 [Zhishichanquan de Zhengdangxing: Lun Zhishichanquan Fa Zhong de Duijia yu Hengping] in China Social Science (Xu 2003). This paper argues that “an expansion of intellectual property against the principle of equity may violate fundamental human rights.” However, the discussion on the justification of intellectual property was gradually marginalized.

Intellectual property has been incorporated into two other higher-level national agendas because of its function to stimulate innovation — one is innovation-driven development,⁴ and the other is *Made in China 2025*.⁵ In the *National Outline of the Innovation-driven Development Strategy*, intellectual property is juxtaposed with the strategies of standardization, quality, and brand as forces to enhance further innovation. *Made in China 2025* is the first step towards building China into an innovative power by 2045, and intellectual property is a key approach to guarantee the achievement of this goal. Both agendas demonstrate the instrumentalism of employing intellectual property to stimulate innovation. These two agendas also manifest an increasing recognition of the significance of intellectual property among Chinese regulators because they were formulated based on consensus among various regulators in charge of development, intellectual property, and industrial policies.

Intellectual property has gained wider recognition from various regulators mainly because of the second dimension of the “innovation stimulation” theory, which links the IP system to one of the grand agendas of China’s big picture — achieving technology catch-up. This catch-up discourse was then integrated into a bigger narrative about the rejuvenation of the Chinese nation after its century-long humiliation in modern history. The second component, though seemingly obscure, provides further justification for promoting the priority of intellectual property on the national agenda.

These two dimensions, taken together, can explain in most cases why China has accepted higher IP protection standards than it initially wanted in the US-China bilateral IP negotiations (Chapter 2.4.1). China’s pragmatic acceptance of high IP standards can be explained as reciprocal coordination — intellectual property could be sacrificed in exchange for another interest (Chapter 5.3.1). It was the principle of innovation stimulation that suggested that the sacrifice of intellectual property would be worthwhile for China, since it came with the promise that, with the support of

⁴ In the keynote report at the 18th CCP National Congress in 2012, the concept of “innovation-driven development” was first proposed. See note no. 2 in Chapter 1. Innovation-driven development was further specified as an operational concept in two recent policies: (1) Central Committee of the CCP and the State Council, *Several Opinions on Deepening the Reform of Systems and Mechanisms and Accelerating the Implementation of the Innovation-driven Development Strategy* 中共中央 国务院关于深化体制机制改革加快实施创新驱动发展战略的若干意见 [Zhonggong Zhongyang Guowutyuan Guanyu Shenhua Tizhi Jizhi Gaige Jiakuai Shishi Chuangxin Qudong Fazhan Zhanlüe de Ruogan Yijian], March 13, 2015, available at http://www.most.gov.cn/eng/pressroom/201211/t20121119_98014.htm; and (2) Central Committee of the CCP and the State Council, *Outline of Innovation-driven Development Strategy* 国家创新驱动发展战略纲要 [Guojia Chuangxin Qudong Fazhan Zhanlüe Gangyao], May 20, 2016, see http://www.china.com.cn/zhibo/zhuanli/ch-xinwen/2016-05/23/content_38515829.htm for a background brief in English.

⁵ State Council, Notice of the State Council on Issuing *Made in China 2025*. See note no. 56 in Chapter 2.

the IP system, China would catch up in the future and at that time the IP standards entrenched by earlier generations of negotiators and regulators would fit China's economy.

9.2.2 The economic contribution theory

The function of intellectual property has also been associated with broader goals of China's economic development. In particular, China has been committed to transforming its manufacturing industry from mass quantity to high quality, changing the production model from labor-intensive to technology-intensive, and balancing economic development with environmental sustainability. The economic contribution theory explains such functions of intellectual property — intellectual property should contribute to the economic transformation in China. Though economic growth and job creation have been central goals, recently the role of intellectual property in promoting innovation that meets environmental goals and sustainable development has also come into focus.

Numerous econometric studies have addressed the economic contribution of intellectual property (Yang and Maskus 2001, Thompson and Rushing 1996, Park and Ginarte 1997, Chu, Cozzi, and Galli 2014, Gould and Gruben 1996). However, the links between intellectual property and economic growth remain uncertain. For example, the effect of intellectual property differs across industries and across the type of intellectual property. More importantly, it is not a direct causal relationship. The function of intellectual property in economic growth is mainly based on its effect in stimulating innovation.

Nonetheless, this instrumental narrative about the contribution of intellectual property to economic development has been adopted as an independent principle in China. In the 1990's, the economic contribution theory focused more on how an IP system could contribute to foreign investment in China. The belief was that only a relatively comprehensive IP system could convince multinational companies to transfer technology to China. In the absence of technology transfer, China would still be trapped by the vicious circle of "equipment importation → equipment aging → equipment re-importation" (Chapter 2.3.3). Empirically, it has been proven that the strengthening of IPR protection in China has had a positive and significant effect on FDI (Awokuse and Yin 2010).

Over time, China began to address the role of intellectual property in China's domestic economic development. The *National Intellectual Property Strategy* states that the goal of intellectual property is to serve the economic and social development. SIPO has been active in developing the economic contribution theory to incorporate intellectual property into the broad agenda of

economic transition. For instance, after Chinese economic growth went into the “new normal”,⁶ Dr. Shen Chagyu, the Commissioner of SIPO, stated in the 2015 Conference of Directors of Local IP Offices: “intellectual property is a very important factor to support economic new normal. In order to better support the new normal, intellectual property should be deeply mixed with (other aspects of) social and economic development” (Shen 2015). In the *Several Opinions in Accelerating Building China as an IP Power under New Conditions* (2015)⁷, the function of intellectual property to be able to directly contribute to an increase in the GDP was emphasized. Since 2016, the National Bureau of Statistics (NBS) has incorporated IP products 知识产权产品 [zhishichanquan chanpin] into the calculation of the System of National Account (SNA) (NBS 2017). When the central government committed to reviving the manufacturing industry through *Made in China 2025*, Dr. Shen further stated that intellectual property should serve the development of China’s real economy (Zhang 2017a).⁸ The National Copyright Administration of China (NCAC), the primary regulator of copyright in China, also strived to consolidate the direct contribution of the copyright industry to economic growth. From 2007, the NCAC has been investigating the contribution of the copyright industry to economic growth. It is reported that the Chinese copyright industry contributed 7.3% to China’s overall GDP in 2015 (Hou 2017). In addition, the State Administration for Industry and Commerce (SAIC), the trademark regulator of China, has emphasized the contribution of the trademark system to China’s economic development, specifically through its function to adapt to supply-side reform, enhance product quality, and promote the increase of consumption (Cui 2017). In addition, SAIC and the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) have also addressed the pivotal role of GIs in solving the problem of agriculture, rural areas and farmers (Chapter 3.3.3).

Recognizing the function of intellectual property, China has also incorporated intellectual property into various industrial policies in recent years. SIPO and other ministries often issue complementary policies to further comply with national economic agendas. For instance, after the State Council Decision on the Development of the *Strategic Emerging Industries*,⁹ several ministries jointly issued the *Opinions for Strengthening Intellectual Property in the Strategic*

⁶ In recent years, China has experienced a slower economic growth rate, which has fallen from the historic double-digit rate to 6–7%. The Chinese government coined the term “new normal 新常态 [xin changtai]” to refer to this rebalance of economic growth to achieve slower but more sustainable economic development. For more discussion about the term, see Zhang and Chen (2017).

⁷ See note no. 1 in Chapter 1.

⁸ At the 8th China Patent Annual Conference, Dr Shen made a speech: “(we) should reinforce the creation and utilization of intellectual property, enhance the level of contribution of technology to real economy, and continuously inject new momentums to the real economy” (Zhang 2017a).

⁹ *Decision of the State Council on Accelerating the Cultivation and Development of Strategic Emerging Industries*, No. 32 (2010), see note no. 39 in Chapter 4.

Emerging Industries,¹⁰ which further specifies that an IP assessment mechanism should be established in order to facilitate the development of strategic emerging industries. Also, intellectual property has become one of the indexes in *Made in China 2025*. It means that when a policy is implemented by local governments in a top-down manner, intellectual property is a key element in any performance evaluation for this policy. Such policy implementation, therefore, not only helps China to realize the goal of *Made in China 2025* but also to strengthen intellectual property activities.

Innovation stimulation theory focuses on intellectual property as a property right that can individually function as a driving force for innovation. The economic contribution theory focuses on intellectual property as a policy instrument to promote China's economic development through the promotion of its own high technology industries. To this end, it is often incorporated or embedded into a bigger agenda, such as innovation-driven development or *Made in China 2025*. As will be discussed in Chapter 10, the strategies to manage IP principles often focus on the innovation stimulation principle, which calls for a more extensive protection of intellectual property.

9.3 The logic of international engagement: foreign policy agenda

Intellectual property has been one of the central issues in China's bilateral and multilateral negotiations. China's international IP engagement follows the basic principles of its foreign policy agenda — “keeping a low profile and getting things done” (Chapter 1.3.4.2). Specifically, foreign policy principles related to China's international IP engagement include the following:

- (1) Non-alignment under the independent foreign policy of peace;
- (2) Adhere to the position that China is a developing country; and
- (3) Safeguard the multilateral trade system.

9.3.1 Non-alignment under the independent foreign policy of peace

China's foreign policy agenda changed dramatically in its first three decades: from “leaning to one side to the USSR 一边倒 [*yibiandao*]” (1949-1958), to “anti-two hegemons 反两霸 [*fan liang ba*]” in the 1960s, to the “big triangle strategy 大三角 [*da sanjiao*]” in the 1970's (Zheng 1991, Zhang 2000, Liu 1999, Ding 2003, Deng 2005). China has developed a relatively stable

¹⁰ The General Office of the State Council, Notice on Forwarding Several Opinions of the State Intellectual Property Office and Other Departments on Strengthening the Work of Intellectual Property Rights in Strategic Emerging Industries (No. 28 [2012] of the General Office of the State Council) 国务院办公厅转发知识产权局等部门关于加强战略性新兴产业知识产权工作若干意见的通知（国办发〔2012〕28号） [*Guowuyuan Bangongting Zhuanfa Zhishichanquanju Deng Bumen Guanyu Jiaqiang Zhanlüexing Xinxing Chanye Zhishichanquan Gongzuo Yijian de tongzhi (Guobanfa [2012] 28 Hao)*].

foreign policy agenda since the 1980s — “the independent foreign policy of peace”.¹¹ The theme of this foreign policy is that “China may not form an alliance with any superpowers, and China will not join one superpower to oppose the other. In dealing with foreign affairs, China will decide its own position on the basis of the merits of the issue, the fundamental interests of the Chinese people and the people of the world” (Zhang 1997, 48-49). The independent foreign policy of peace has been China’s major foreign policy agenda to deal with bilateral relations with other states. As pointed out by Zhang (1997), the core of this policy is non-alignment.

The independent foreign policy of peace has developed with the changing situation globally since the end of the Cold War. The non-alignment position has evolved into partnerships with other countries. Wang Yi, the Foreign Minister of China, has pointed out that the core idea of partnership that China has established is “partnership without alliance”.¹² This partnership differs from a conventional alliance in two ways. First, it does not emphasize security as the alliance system does; second, it does not target any third party as a potential enemy, and it does not exclude or coerce a third party (Sun 2012). In summary, non-alignment is still the important feature of the primary independent foreign policy of peace.

9.3.2 China as a developing country

China’s status in the world has been a controversial issue due to the dual identity of China. It has become the world’s second-largest economy while still a lower-middle-income country (Nolan 2012). From this dual identity, one can infer that either China is a leading economy in the world or China is still a developing country. China has given full play to its dual identity to best serve its national interests. In terms of international IP engagement, China’s self-identification as a developing country has been consistently maintained. For instance, in the case of the disclosure obligation, the Chinese representative at the WTO TRIPS Council stated the following to support the disclosure obligation (Chapter 4):

Many developing countries possessed plenty of genetic resources and related traditional knowledge but, due to some constraints on their technological capacities, most of them were unable to make full use of these resources and knowledge for patented innovation...The TRIPS Agreement did not extend protection to genetic resources and traditional knowledge, thus encouraging biopiracy and damaging the interests of many developing countries. The proposal for the amendment of the TRIPS

¹¹ The 12th CCP national congress held in 1982 established China’s new foreign policy agenda of “independent foreign policy of peace 独立自主的和平外交政策 [duli zizhu de heping waijiao zhengce]”.

¹² This term is translated from “结伴而不结盟 [jieban er bu jiemeng].” Wang Yi made this argument at the Press Conference of the 2015 “Two Sessions” (annual plenary sessions of the National People’s Congress and the National Committee of the Chinese People’s Political Consultative Conference). Wang Yi pointed out at this press conference that “this foreign policy focuses on constructing new foreign relations based on cooperation and win-win. China has established a partnership of various forms with over 70 countries in the world” (Wang 2015).

Agreement made by some developing Members was meant to enhance the mutual supportiveness of the TRIPS Agreement and the CBD...China, together with many developing Members, believed that the work under the TRIPS Council should be intensified...ensuring that the source of genetic resources and traditional knowledge obtained from developing countries was disclosed in patent applications. He agreed with Brazil that this item be included in the final single undertaking.¹³ [Underline mine]

This speech vividly shows how China allied itself with other developing Members in post-TRIPS IP negotiations at the WTO to promote an agenda consistent with its domestic policy objectives.

China's developing country identity requires that its position on specific issues stays aligned with such an identification. Specific to intellectual property, it means China should consistently support the following developing-country positions:

- (1) Oppose TRIPS-plus standards in multilateral negotiations (substantively), and procedurally support multilateralism and oppose the new trend of plurilateralism (such as ACTA and TPP);
- (2) Support developing countries' proposals on traditional IP issues at multilateral and bilateral fora; and
- (3) Support the WIPO development agenda and promote the dissemination of knowledge for the purpose of promoting access.

These three dimensions have emerged from the case studies in the thesis. In the case of position 1, China opposed the US and other developed countries' initiatives of vertical forum-shifting, including ACTA and the IP chapter in the TPP (Chapter 7.4.3). Position 2 can be seen in China's stance at the WTO TRIPS Council in the cases of GIs (Chapter 3.4.1) and the disclosure obligation (Chapter 4.5.1). In addition, the active promotion provisions¹⁴ in Chinese FTAs (Chapter 6.3) also show China's standpoint of supporting the developing countries' positions. Position 3, though not examined through specific cases, is also evident in China's position on the issues of access to medicine¹⁵ and technical assistance on technologies conducive to adapt to and mitigate climate change.¹⁶

¹³ WTO TRIPS Council, Minutes of Meeting Held in the Centre William Rappard on 13 February 2007, IP/C/M/53, March 22, 2007.

¹⁴ In Chapter 7, active promotion provisions refer to IP provisions in Chinese FTAs where both parties are committed to promoting a standard not mentioned in TRIPS. Active promotion provisions are often voluntary soft rules, but they represent the preference and prospect for different rule-making in intellectual property initiated by China.

¹⁵ WTO TRIPS Council, Intellectual Property and the Public Interest, Communication from Brazil, China, Fiji, India and South Africa Communication, IP/C/W/630, June 6, 2017.

¹⁶ Implementation of the Bali Roadmap-China's Position on the Copenhagen Climate Change Conference 中国关于哥本哈根气候变化会议落实巴厘路线图立场 [Zhongguo Guanyu Gebenhagen Qihou Bianhua Huiyi Luoshi Bali Luxiantu Lichang], May 2009, available at: <http://www.china-un.ch/eng/bjzl/t564324.htm>.

9.3.3 China as a pillar in the multilateral trade system

China has been safeguarding the WTO, the world's multilateral trade system, mainly through its compliance with WTO rules. As mentioned, China amended its IP laws comprehensively to comply with the WTO rules in 2000, and again to comply with the panel's decision on the US-China WTO IP dispute (DS362) (Chapter 2.4.2). While the US tends to embrace bilateralism under the Trump administration (Gertz 2017), China is slowly building itself into a pillar of the multilateral trade system. China's position in firmly supporting multilateralism can be seen in the position statement by Gao Hucheng, the Chinese Minister of Commerce:

China also participated in, protected and contributed to the multilateral trade system by observing WTO rules and fulfilling its promises and responsibilities. After the outbreak of the global financial crisis, China continued its efforts on multilateral trade rules. When the Doha Round met with impasse, China, at both ministerial meetings in Bali and Nairobi, played a leading role as a responsible major trading country, in a bid to help the WTO move forward, bolster global prosperity and boost multilateral trade system (Gao 2016).

Gao also highlighted that the WTO is a rule-based multilateral trading system, and compliance with its rules plays a key role in the prosperity that international trade and investment can bring. But the compliance mechanism is not designed only for China. He urged other WTO Members to recognize China's market economy status 15 years after China's accession to the WTO.¹⁷ When the EU and the US refused to do so, China requested consultations with the EU¹⁸ and the US¹⁹ at the WTO Dispute Settlement Body (DSB), one day after the 15-year expiry date. China began to adopt the same discourse the US used when it was trying to establish the WTO, the "rule-based" discourse about the importance of the multilateral trade system and urged the EU and the US to comply with the system (Zhang 2017d). The above two consultations show how China is using WTO rules to safeguard its own interests. In summary, the non-alignment principle deals with the basic position as to whether China should make an alliance in IP negotiations. Its adoption of a developing country identity mainly defines China's IP position substantively. One can often see that China has a clear position in opposing the proposals of developed countries, but its position on the proposals of developing countries is sometimes more obscure. Clearly, China does not oppose developing countries' proposals. However, it has been cautious in joining coalitions.

¹⁷ Provisions concerning recognising China's market economy status are stipulated in Article 15 of the *Protocol of China's Accession* to the WTO. Zhang interprets this provision as that by the end of the 15 years, other WTO Members should end of the practice that trading partners use a "substitute nation method," a special formula and prices in third countries to calculate punitive tariffs for non-market economies in anti-dumping cases. Instead, the real prices should be used as a basis for such calculation.

¹⁸ WT/DS516, European Union—Measures Related to Price Comparison Methodologies.

¹⁹ WT/DS515, United States—Measures Related to Price Comparison Methodologies.

9.4 The variations of principles

The rapid development of intellectual property and other issues in China over the last four decades has seen variations in the principles of decision-making. Some sub-state actors and private actors have come to recognize the value of intellectual property itself and are cultivating an IP culture. For example, in foreign policy, one can detect a temporal change from keeping a low profile to getting things done.

9.4.1 From IP instrumentalism to cultivating an IP culture

Though IP instrumentalism has been the dominant principle justifying the importation of IP rules in China, there has been a bifurcation in the recognition of IP instrumentalism in recent years. On the one hand, IP instrumentalism is reinforced. The belief in intellectual property gradually developed among epistemic communities and technocrats through the medium of transnational networks formed between Chinese technocrats and their counterparts from the US, the EU, and WIPO in the form of capacity building. These transnational networks often take the form of technical assistance, training and exchange programs (Chapter 8.2). Wyzycka and Hasmath (2016, 8-9)) concluded from their investigation of EU-China projects on intellectual property that “probably the greatest achievement of the EU’s norms transfer to China is that there seems to be an increasingly positive attitude at the central level of Chinese administration, in particular, MOFCOM, towards IP.” WIPO has been another important missionary promoting the IP system in China (Chapter 7.2). In November 2016, the Shanghai Municipal People’s Government and WIPO co-organized an international conference with the support of SIPO. The theme of the conference was *Building Respect for Intellectual Property: Stimulating Innovation and Creativity* (Gurry 2016). This title suggests that a *cultural change* in relation to intellectual property is happening: from IP instrumentalism to respecting the value of intellectual property itself.

Domestic right holders who have benefited from the IP system have also begun to support more effective IP enforcement. For instance, Zheng Yuanjie, one of the most famous authors of children's books in China has spoken about the importance of intellectual property for authors (Wang 2017a). In parallel with the surge in trademark registration and patent applications, IP litigation has also surged in recent years. For right holders, IP protection is the end, not a means. IP enforcement has been emphasized in various places, and special campaigns against counterfeiting have been launched by different ministries and implemented by local IP authorities, in response to the calls from right holders.

On the other hand, some domestic regulators have begun to recognize other aspects of intellectual property. The anti-monopoly regulators, for instance, have noticed that IP monopolies can stifle innovation. They keep an eye on the negative effects and have formulated anti-monopoly

guidelines on the abuse of intellectual property.²⁰ In addition to anti-monopoly law implementers, the general public, by and large, took a defiant position when the alien IP system was introduced in a top-down format in the early 1980s. The repetitive, large-scale and sometimes organized IP infringement that took place also revealed that although the IP institution had been formally established, the general public was a long way from respecting intellectual property as a property right. Such defiance²¹ underpinned various forms of IP infringement and caused the high cost and low effectiveness of IP enforcement.

IP regulators and IP right holders as rights beneficiaries are eager to address the motivations underpinning this defiant attitude from the public. They have made efforts to cultivate an IP culture. In 2013, *Several Opinions on Reinforcing the Construction of Intellectual Property Culture* were jointly issued by six IP regulators.²² These *Opinions* set medium and long-term goals for the cultivation of IP culture.

By 2015, the social identity of the core values of intellectual property and the sense of honor and shame related to intellectual property will have been significantly improved, public awareness of intellectual property will have been further enhanced. By 2020, the core values of intellectual property will have been an important part of a universal recognition by the public.

Among various strategies to implement these *Opinions*, IP education has been emphasized. In university education, there is a call for promoting intellectual property as an independent discipline (Chen 2017). As a further step to cultivate IP culture, IP education has been extended to primary and secondary schools. SIPO and the Ministry of Education initiated a campaign to “cultivate awareness of intellectual property in kids”.²³ Statements on the goals for IP education include:

²⁰ SAIC Provisions on the Prohibition of Abuse of Intellectual Property and Restrictions on Competition in 2015. See note no. 22 in Chapter 5.

²¹ In the process of importing intellectual property rules, China failed to respect traditional social values and challenged the stress and coping capabilities of individuals (See chapter 2.2). Instead of condemning the defiance as a theft of intellectual property, I argue this lack of consideration of local conditions is also responsible for generating defiant attitude. See Braithwaite (2009) for the role of defiance in regulation.

²² State Intellectual Property Office, Ministry of Education, Ministry of Culture, State Administration of Industry and Commerce, State Administration of Press, Publication, Radio, Film and Television (SAPPRFT), and National Copyright Administration of China jointly issued *Several Opinions on Reinforcing the Construction of Intellectual Property Culture* 关于加强知识产权文化建设的若干意见 [Guanyu Jiaqiang Zhishichanquan Wenhua Jianshe de Ruogan Yijian], No. 22 (2013).

²³ This is the slogan of the campaign, which is translated from Chinese “知识产权从娃娃抓起 [zhishichanquan cong wawa zhuaqi]”.

*Young people can develop their respect for knowledge, advocating innovation and protecting intellectual property. Such education for young students can have a spillover effect on the whole society. It is desirable that a situation of “educating a student, influencing a family, and driving the whole society (to respect intellectual property)” can be formed.*²⁴

To achieve these goals, it is expected that in 2020, around 100 primary and secondary schools in China will have IP programs. Special public funds have been allocated by SIPO to reach this target. These goals for education, if successfully achieved, will gradually transform IP instrumentalism into a belief in the inherent value of intellectual property among the next generation.

9.4.2 The transition from “keeping a low profile” to “getting things done”

China’s second-generation leader Deng Xiaoping first proposed the principle of “keeping a low profile, while getting things done”²⁵ in the early 1990’s as China’s strategy to respond to the end of the Cold War. This guideline set the basic tone for China’s position at multilateral fora. China hid its capabilities, bided its time, avoided confrontation, and took advantage of the peaceful and stable international environment to facilitate domestic development. China expanded its trade and became a Member of the WTO, focused on economic development, and enhanced its military strength, technological competence, and diplomatic influence. Though keeping a low profile was only the first part of Deng’s idea, this part had been disproportionately emphasized in the first two decades after it was proposed.

This guideline endured throughout changing circumstances. Gradually, the second half of the guideline, “getting things done” became the priority. In the first decade of the 21st century, China adopted a foreign policy agenda of “peaceful rise” under the Hu Jintao Administration, which was later replaced by the “peaceful development of China in a harmonious world” (Glaser and Medeiros 2007, Huang 2015). Since the Xi Jinping administration started in 2012, China has emphasized “getting things done”. Evidence for this changing focus can be seen mainly in the recent BRI which has involved IP engagement. Intellectual property has been influenced by the transition from being conservative and cautious “keeping a low profile” to being more active and “getting things done”. Specifically, China proposed the goal of becoming a leading IP power in

²⁴ The State Intellectual Property Office and Ministry of Education issued *Work Plan for Implementing the National Pilot and Demonstration Program of Intellectual Property Education at Primary Schools and Secondary Schools (Trial)* 全国中小学知识产权教育试点示范工作方案 [Quanguo Zhongxiaoxue Zhishichanquan Jiaoyu Shidian Shifan Gongzuo Fang'an (Shixing)], 2015.

²⁵ This is a translation for the eight Chinese characters “韬光养晦，有所作为 [taoguangyanhui yousuo zuowei] which were extracted from Deng’s talks in the 1990s. It has been China’s foreign policy guideline ever since.

the world and building “fairer and more reasonable international IP rules”.²⁶ China has actively promoted IP capacity-building in the BRI countries, as well as the BRICS countries (Chapter 7.5.3 and 7.5.4).

9.5 Summary

In summary, the logic of intellectual property in China is essentially IP instrumentalism, which means the value of an IP system lies in its function to achieve technology catch-up and economic development, along with China’s other goals. The foreign policy agenda of keeping a low profile to some extent constrained China’s international IP engagement. Over time, one can see changes in principles. Some ministries in charge began to focus on the value of intellectual property itself and have become devoted to cultivating an IP culture. Chinese foreign policy has also begun to focus more on getting things done, as shown by the recent BRI. The recent changes make the relationship between different principles more complicated. The next chapter will discuss the strategies by which China manages contesting principles.

²⁶ See Para. 25 of the Several Opinions in Accelerating Building China as an IP Power under New Conditions (2015).

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Chapter 10 Strategies to Manage Contesting Principles

10.1 Introduction

Strategies refer to specific methods that China has utilized either to achieve one of the principles or to reconcile two contesting principles (Chapter 9). Two basic strategies will be discussed in this chapter: modeling and balancing. China modeled the advanced IP systems in the first four decades of the PRC. Section 10.2 will discuss the variation of the modeling strategy in different contexts. Section 10.3 will discuss three specific strategies of balancing (disassembling, reticence, and the foreign policy chessboard).

10.2 Modelling

Modeling refers to a process of undertaking active learning, working with the models from international organizations, studying the experience from other industrialized countries, and sometimes refining these to fit with local conditions. As pointed out by Braithwaite and Drahos (2000), modeling is more than mere imitation. In this thesis, modeling is different from rule-taking because the actor who models can take the initiative in the process of modeling.

Modeling is the primary strategy that China has adopted to establish the domestic IP system. The intellectual property system was introduced to China through regulatory importation, which was part of the modeling strategy. Foreign IP laws were translated into Chinese, and their differences were studied carefully. IP experts from the EU and the US were invited to China to provide technical assistance, and Chinese officials and IP scholars took study tours, training, and exchanges to learn more about foreign IP systems. Chinese IP scholars actively followed and analyzed the latest developments in the international IP system and IP legislation of other countries.

Modeling adds nuances to the rule-maker/rule-taker narrative by clarifying the grey area between a rule-taker and a rule-maker. One can understand, through modeling, the concerns China had over intellectual property, the choices China has made and the principles that underpinned these choices. Generally, the foreign policy chessboard was the underpinning principle for modeling before China's accession to the WTO, and the innovation stimulation principle and the economic transformation principle have guided modeling afterward.

China re-embraced the international IP system in the late 1970s, following its bilateral agreements with the US on trade and science and technology cooperation. China modeled IP systems from the US and the EU following the principle of the foreign policy chessboard. After China's accession to the WTO, Chinese IP laws modeled provisions in TRIPS to meet the requirement for

compliance. GIs are a case in point. After TRIPS, China extended the range of targets it would model from existing international IP rules to rules that were beyond TRIPS standards. In the case of the disclosure obligation, China modeled rival rules — rules that the US opposed. A more recent trend has been manifested in the case of standardization, where China attempted a transition from “modeling the rules” to “modeling the strategies” for winning markets.

10.2.1 Modelling as a strategy for foreign policy chessboard

The historical review and case studies discussed in this thesis show that modeling was employed extensively in every area of intellectual property, throughout China’s modern history. Until China’s accession to the WTO, China modeled IP rules simply for TRIPS compliance. Compliance itself was the result of the foreign policy chessboard. In the bilateral IP negotiations between China and the US, the threat of trade retaliation by the US brought counter-threats from China. Despite this cycle of threats, a reciprocal coordination between the parties occurred — the US agreed on MFN treatment for China and to the release of restrictions on technology transfer, while China agreed to establish an IP system and to continually increase its domestic IP protection standards. This reciprocal coordination required China to put intellectual property as a piece on the foreign policy chessboard and this, in turn, became the trigger for China to take the modeling strategy before TRIPS.

A different scope of analysis may lead to different conclusions on China’s IP engagement during this period. If the subject of analysis is limited to intellectual property, one would see China’s importation of intellectual property law before TRIPS as a result of coercion from the US and refer to China as an IP rule-taker. However, from the perspective of the foreign policy chessboard, having a domestic IP system in place was a cost that China had to pay to integrate itself into market globalization (getting MFN treatment from the US) and achieve its technology catch-up. Following the foreign policy chessboard principle, modeling at this stage was aimed at appeasing the US. Within a decade, China promulgated *Trademark Law* (1982), *Patent Law* (1984), and *Copyright Law* (1990), which fulfilled its commitment made in the US-China negotiations. China’s symbolic compliance further raised the issue of enforcement.

Adherence to the foreign policy chessboard principle does not mean China lost its autonomy in deciding what to model. From the 1980s when the formulation of patent laws was put on the agenda, China invested a lot of time and personnel in studying and comparing IP systems in different jurisdictions. China did not always model the US. For instance, when the State Patent Office of China (SPO) began accepting patent applications in 1985, it signed an agreement with the EPO which agreed to provide technical assistance to the Chinese patent examination system. For over 30 years, the two patent offices cooperated with each other extensively in areas of policy

and rule-making, personnel training, patent examination, machine translation, Cooperative Patent Classification (CPC) and patent archives (Tuo and Tang 2015).

10.2.2 Modelling for compliance and resistance

Following China's accession to the WTO, the Chinese IP laws underwent a substantial amendment to comply with the TRIPS standards. The amended intellectual laws in 2001 adopted the exact language of TRIPS to avoid any potential inconsistency. Thereafter, there was no international obligation for China to further increase IP protection. In this sense, China also modeled TRIPS as a baseline to resist any ratcheting-up of IP standards. GIs are a case in point.

In the 1990s, as GIs were not clearly mandated to a specific ministry, SAIC and the AQSIQ both acquired regulatory power over GIs. With transnational bureaucratic networks, SAIC modeled the US trademark system while AQSIQ and MOA modeled the EU *sui generis* system that provides more extensive protection than TRIPS. The outcomes of this modeling were three independent parallel systems for GIs in China. Although following different logics (trademarks versus *sui generis* protection), the three systems in China actually provide protection equivalent to TRIPS. In the case of modeling the US trademark system, this meant increasing protection for wines and spirits to comply with TRIPS. In the case of modeling the EU *sui generis* system, China essentially resisted the higher standards that the EU *sui generis* system conferred by defending TRIPS standards (Chapter 3.3.2).

In the US-China bilateral negotiations, China also resisted the higher requirements set by the US by defending the IP standards of Draft Final Act (1991) (Chapter 2.4.1). China has used modeling to develop patterns of compliance and resistance to help it navigate a world of rule-complexity, defending the lowest possible standards to minimize the impacts resulted from the foreign policy chessboard.

10.2.3 Modelling a rival standard

China does not always model the US. In the case of the disclosure obligation, Chinese representatives undertook active learning at the TRIPS Council and WIPO IGC. Consequently, China supported a rival standard, similar to the EU/Norway proposals for weak disclosure model. Although China did not follow the megadiverse countries' strong disclosure model that requires disclosure as a substantive requirement for the grant of a patent, *Patent Law* (2008) introduced a complementary "linkage" arrangement to protect genetic resources inspired by the megadiverse countries' position (Chapter 4.4.2). Arguably the outcome of China's creative modeling may still not be sufficient to protect genetic resources because the linkage has not been comprehensively established. Nonetheless, modeling a rival standard itself indicates the unique learning curve of China in the post-TRIPS era. China's position on disclosure also brought closer coordination with other megadiverse countries on this issue at the TRIPS Council.

10.2.4 Modelling the strategy of standardization

The Chinese government and Chinese companies learned, at great cost to their DVD industry, that intellectual property alone is not enough if Chinese companies want to be competitive and profitable in the global market. Modeling occurred across three dimensions in this case: First, the Chinese government enacted its own anti-monopoly law, which was a combination of modeling (from the US anti-trust law and EU competition law) and adapting it to its local conditions. Secondly, the Chinese government carefully studied the US and EU strategy of standardization and set up its own national standardization strategy (Zhang and An 2005). Thirdly, Chinese companies began to model multinational corporations in order to obtain or maintain their competitiveness through standardization. What was modeled in the second and third dimensions was not the content of a standard, but the strategy of using standard-setting to maintain competitiveness. Although Chinese companies failed in their attempt to promote WAPI as an international standard, the recent development of 4G and 5G standards has seen deeper involvement by Chinese companies. The case of standardization, spanning almost two decades, also shows how modeling in the form of learning took hold and began to accelerate.

10.2.5 China to be a model exporter

Since China's *National IP Strategy* in 2008, modeling has been used more to follow the innovation stimulation principle rather than the foreign policy chessboard. Chinese decision makers, as well as the epistemic communities, have been convinced by the innovation stimulation principle. Under this principle, China has actively modeled more "advanced IP systems" in the world. TRIPS-plus standards adopted by domestic laws and accepted in bilateral FTAs demonstrate this emerging trend. Typical cases include data exclusivity and patent linkage; in both cases, the advocacy of IP epistemic communities started the modeling process.

China began to transform itself into an IP model exporter in the fora of BRICS and the Belt and Road Initiative (BRI). It also enhanced its IP engagement with developing countries in other fora. Through webs of dialogues, China provides technical assistance to enhance IP capacity building in these countries and it disseminates its successful experience and best practice in intellectual property to these countries (Chapter 7.5.3 and 7.5.4). This transformation conforms to both the principle of innovation stimulation and the recent foreign policy agenda of striving to get things done. Such a transformation is necessary for China to protect its own intellectual property in these countries when it exports its own technologies, in particular to the BRI countries.

10.2.6 Discussion: modeling and regulatory sovereignty

When the US, Switzerland and other industrialized countries were in their early stage of industrialization, they played a game of defiance in intellectual property. The US entered the

Berne Convention in 1988, a century after the Berne Convention came into force. In the 19th century, the Netherlands opted to eliminate its patent law. Switzerland took advantage of the absence of the patent protection in certain subject matters to help its industrial development, especially in industries like dye, chemical, and electro-technical (Machlup and Penrose 1950, Schiff 1971).

China cannot afford defiance in intellectual property. China entered the international intellectual system after TRIPS, which meant it had little influence on the emergence of the TRIPS paradigm. Its choice was basically to accept or reject it. Rejection meant that China would be excluded from the WTO, which was not really an option for a nation developing on the basis of export growth. In the post-TRIPS era, China did not have the flexibility to determine its own domestic IP standards, like the US and Switzerland once had. Instead, China had to comply fully with the international standards established by TRIPS. In this situation, China's regulatory sovereignty was limited, compared with the US and other industrialized countries. The modeling strategy indicates how China has exercised its limited sovereign discretion over intellectual property.

Modeling has two important effects: compliance and institutional isomorphism. Compliance with international IP standards is necessary for China to integrate itself into the international IP system. Institutional isomorphism, as indicated by its name, is an institutional effect. Institutional isomorphism refers to the process that organizations become similar or homogeneous with each other (DiMaggio and Powell 1983).¹ After extensive learning in the form of personal training, study tours and numerous roundtables and seminars and symposiums, the Chinese IP regulators came to hold views very similar to their counterparts in the EU and the US

10.3 Balancing

As Braithwaite and Drahos pointed out in *Global Business Regulation*, one prominent characteristic of principles is that they are not mutually exclusive. Different principles can coexist and contest (Braithwaite and Drahos 2000). China appears to juggle, balance, and manipulate principles, with a view to steering itself to fulfill its big-picture vision. This section will focus on the strategy of balancing that China employs to reconcile contestation of principles.

There is potential contestation between the innovation stimulation theory and some of the foreign policy positions held by China. One is with China's self-identification as a developing country, and the other is China's foreign policy agenda. Specific strategies to balance the contestation will be discussed in the following sections.

¹ DiMaggio and Powell (1983) have identified three sources for the institutional isomorphism: mimetic, normative, and coercive pressures.

(1) Innovation stimulation versus maintaining developing country status

There is a contestation between the innovation stimulation principle and China's position in maintaining its developing country status. On the one hand, the innovation stimulation principle encourages China to promote more extensive IP protection. On the other, its claim to developing country status requires China to act as a developing country by, for example, supporting developing country positions at various international fora. Specifically, by adopting a developing country status, it has to oppose TRIPS-plus standards and plurilateralism and support developing countries' proposals (Section 9.2.4.2).

(2) Innovation stimulation versus keeping a low profile

When there is potential contestation between the innovation stimulation principle and China's general foreign policy agenda, the foreign policy agenda will always prevail. As pointed out by Yang Jiechi, State Counsellor and Director of the CCP Central Foreign Affairs Office:

We have to emphasize that foreign affairs must take care of both domestic and international respects, plan comprehensively, deployed uniformly, and implement under coordination; this requires central and local governments, civil society and other foreign-related departments firmly to establish a sense of "foreign policy chessboard", perform their duties, and make a concerted effort (Yang 2013, 10).

Following this guideline, intellectual property should serve China's overall interests in foreign affairs. This means that when there is an internal conflict between different opinions surrounding intellectual property, the one that serves China's foreign policy interest prevails.

It is not unique for China to have a potential contestation between (1) the desire for higher IP protection standards because of enhanced innovative capacity that such standards might bring and (2) the foreign policy demand to defend a developing country position. It perplexes other emerging powers. For instance, Okediji (2004b) pointed out that the developing-country coalitions on intellectual property are fracturing as some emerging powers within the coalition (India and Brazil) have developed their technology, which propels these countries to subtly change their positions in IP negotiations. Benoliel and Salama (2010) further highlighted the tension between innovation and international IP negotiation. They refer to this phenomenon as the "innovation dilemma" in which innovation weakens the negotiating power of the emerging countries. As they enhance their innovative capacity, developing countries tend to adopt similar IP standards to developed countries; in turn, this position of developing countries weakens their bargaining power.

China has adopted the following specific balancing strategies to address the clashes flowing from the need to stimulate innovation while adhering to the foreign policy agenda: dissembling, reticence, and moves on the foreign policy agenda.

10.3.1 Dissembling

Dissembling refers to an approach in which an actor backs different, sometimes inconsistent principles, making it hard to understand its true position. Specifically, it refers to a situation where a state takes a clear position at one international forum at one time, but its positions at different fora on the same issue are inconsistent with each other. This measure is used by China to allow it to keep moving to higher IP standards to promote further innovation while projecting an apparent desire to maintain IP multilateralism as a developing country.

Dissembling is not used in the thematic cases examined in this thesis. It is deployed systematically and evidenced by data on China's engagement at different levels (Chapter 6-7). At the national level, China reinforces IP protection to stimulate innovation, and to achieve technological catch-up. The innovation stimulation principle has prevailed at the domestic level: some Chinese domestic IP laws and regulations have already adopted TRIPS-plus standards (Chapter 6.4). At the multilateral level, China supports IP multilateralism at the TRIPS Council and opposes forum-shifts led by the US

At the bilateral level, China's positions are more variegated. Most of the IP provisions in Chinese FTAs defend TRIPS standards, either implicitly or explicitly (Chapter 6.2) indicating support for multilateralism. On certain issues, China has adopted TRIPS-plus IP standards in its recent FTAs with Switzerland, Australia and South Korea (Chapter 6.4). These provisions, though not many in number, lend support to the innovation stimulation theory. There are also active promotion provisions in Chinese FTAs where China promotes issues with an element of development, such as the protection of genetic resources, and intellectual property and public health.

The nuanced positions of China at the different levels can be explained by dissembling. First, with regard to TRIPS-plus provisions, any standards beyond TRIPS are apparently unacceptable to China at the multilateral level because China has a clear principle of aligning its position with developing countries. However, China's domestic IP protection level is high and so it is no longer a concession for China to accept TRIPS-plus standards. Still, FTA partners aiming for higher IP standards (Switzerland, Australia and South Korea, Chapter 6.4) had to go to the bilateral level to negotiate TRIPS-plus provision with China. By opening a bilateral FTA door to TRIPS-plus provisions, China turns intellectual property into a bargaining chip for itself. Secondly, most of the active promotion provisions in Chinese FTAs are vague, open-ended, and with no treaty obligation attached. They showcase China's attitude to align itself with other developing countries. With dissembling, China managed to align with developing country positions at the multilateral level, strategize IP as a bargaining chip in its FTAs negotiations, and enhance domestic IP protection to stimulate innovation.

10.3.2 Reticence

Reticence refers to an approach in which an actor tries to keep a low profile while participating in the international negotiation of an issue — it refuses to join any alliances, abstains from expressing a clear substantive position, and keeps implementation to a minimum when it has to. While dissembling is used by China to mask its support for some higher IP standards held by developed countries, reticence is used to deal with proposals by developing countries, often related to access.

Through the practice of reticence, China aimed to reconcile the tension between the innovation stimulation theory and China's foreign policy position of non-alignment and keeping a low profile. This tension is compounded by the contestation between the innovation stimulation theory and the social contract theory of intellectual property that underpins developing country proposals. Following social contract theory, the developing country proposals have not only strived to balance the proprietary interest and the public interest but also to prioritize the public interest (manifested by access interests). They prioritize it by framing the access to medicine, food, and books as basic human rights to life, to health and to knowledge. At the same time, they have framed intellectual property as a constructed monopoly that has stifled these human rights (Sell and Prakash 2004). In addition to developing countries, international civil society has also actively participated in these campaigns. Since it is not possible to support both proprietary and access interests, there is no space for dissembling. China has had to take sides. Domestically, China has moved to create large IP administrations and to protect IP right holders to promote innovation. Internationally, it has used reticence to mitigate the tension and maintain its developing country status.

At the international level, China's reticence mainly takes the form of inaction or abstention from participation. For instance, China has not made any meaningful contribution to the international discussion on access to medicine at various multilateral fora, only observing the progress of the international debate without trying to steer its progress or expressing a clear position.

At the national level, China's reticence takes the form of minimum implementation. As mentioned in Section 9.3.1, China has complied with international IP standards. Although China has not been actively supporting the access campaign at the international level, it did not hesitate to comply with any substantive international norms that the access campaign has achieved. A case in point is the compulsory license of patents. In *Patent Law* (2000), China adopted the same wording in the provision of compulsory license to comply with the WTO standard — a typical example of modeling. On November 29, 2005, SIPO issued *Measures for Compulsory License of Patents concerning Public Health*, as its implementation of the *Doha Declaration on the TRIPS*

Agreement and Public Health.² Since then, civil societies and domestic pharmaceutical companies have tried to initiate the procedure. One reported case was that the Chinese hepatitis community and AIDS community had submitted *the Petition to Grant Compulsory License to the Drug Lamivudine* to MOFCOM, Ministry of Health, SIPO, the National Centre for Disease Control and Prevention, and the State Food and Drug Administration (SFDA) (Fang and Zou 2012). However, there has been no official reply to this petition. To date, no single compulsory license has been granted by the Chinese government in the 12 years after the 2015 *Measures* (Xie 2017).

The innovation stimulation theory and economic contribution theory are the underpinning rationales for China to undertake the strategy of reticence to address developing countries' proposals. The influence of the innovation stimulation theory makes the Chinese government hesitant to advocate for developing countries' proposals on access-related issues. The economic contribution theory also keeps China silent at multinational fora on access-related issues. China does not want to disturb FDI from multinational pharmaceutical firms and so has not issued a compulsory license to generic firms in China. In addition, according to the analysis of sub-state actors, regulatory neglect provides a regulatory explanation for China's reticence in access-related issues (Chapter 8.2.4). Access-related issues have never been central to the implementation of the National IP strategy. In the *Major Expected Targets for the Implementation of the National IP Strategy (2014—2020)*³ (Appendix III), no single target is related to access. Promoting access has not been one of the major targets for ministerial IP regulators and it has not been designated to a specific ministry to implement, therefore, no ministry is explicitly responsible for its implementation. In this case, even if a government official in charge of access-related IP issues acknowledges the significance of access interests and is motivated to promote such interests, his/her effort may be impeded by the lack of a clear mandate.

10.3.3 Foreign policy chessboard

When there is a contestation between intellectual property and the foreign policy agenda, the rule of thumb is that the foreign policy prevails. Intellectual property becomes a pawn on the “big chessboard of foreign policy”. As mentioned in the modeling strategy, the initial momentum for China to draft IP laws in the early 1980s was to fulfill its treaty obligations under US-China bilateral treaties on high energy physics and trade relations (Chapter 2.4.1). Again, China comprehensively amended its IP laws in 2000 to fulfill the commitments it undertook as part of

² These measures were replaced by *Measures for Compulsory Licence of Patent Implementation*, promulgated by Order No. 64 of SIPO on March 15, 2012.

³ State Council, Notice on the Action Plan for Further Implementing the National Intellectual Property Strategy (2014-2020). See note no. 50 in Chapter 2.

WTO accession. These domestic law-making processes were not out of genuine domestic demands for these laws, but to keep foreign policy promises.

The foreign policy chessboard also means that when an issue is considered as a priority in foreign policy, it will be resolved efficiently, in a way that is favorable to the foreign party. Foreign companies doing business in China have long been aware of such practices. As early as the 1980s, EU and US companies or industrial associations began to lobby their governments to coerce/persuade China to enhance IP protection standards. European GI owners of Danisa and Champagne managed to pressure the Chinese government to protect their GIs through case-specific administrative decrees (Chapter 3.3.1.2). These decrees offered super-national treatment because Chinese geographical names were not protected at all at that time. In the standardization case, the plan to adopt the home-grown standard WAPI as a compulsory national standard for WLAN was highlighted in the US-China Joint Committee on Commerce and Trade (JCCT) and suspended indefinitely (Chapter 5.3.1).

The foreign policy chessboard is also the rule of thumb when China actively engages the international IP system. In this case, the foreign policy chessboard means a deliberation process open to all relevant ministries to make a concerted decision on a foreign policy-related IP issue. This strategy aims to safeguard the implementation of “keeping a low profile while getting things done” through cautious consideration of all relevant aspects of an issue by all relevant parties. It also guarantees that the ministries representing China internationally have a coherent voice on the same issue. They may disagree internally in discussions or deliberations, but they must speak in one voice once a decision is made.

An example of this is the deliberation process of hosting the diplomatic conference of the WIPO Treaty for Audio-visual Works (Chapter 7.2.3). It was not a big issue in the sense of IP rule-making because China was not contributing substantively to the negotiating process of the treaty. However, the organization of such an event in China was a significant foreign policy issue. During the deliberation of whether to hold this event in a Chinese city, National Copyright Administration of China (NCAC), the copyright regulator in China, was part of a larger group decision-making process, which included CMFA, MOFCOM, SAIC and SIPO, even Legislative Affairs Office of the State Council (LAO) and Legislative Affairs Committee of the National People’s Congress (LAC). After careful consideration, it was decided that Beijing would host the diplomatic conference and the treaty could bear the name of Beijing. The issue at stake was whether it would be a correct and reasonable decision to raise China’s IP profile by hosting the conference under the general principle of keeping a low profile.

This foreign policy chessboard also works in implementation. When explaining why China has not issued a single compulsory license for any patent, Mr. Yin Xintian, the then Director of Legal

Department of SIPO said “since it [compulsory license] is an issue that can have a significant impact, so it is a cautious decision to make. SIPO cannot make the decision alone — a request should be made by the Ministry of Health, Ministry of Agriculture and other ministries” (He 2010). One of the greatest concerns about issuing a compulsory license is its impact on multinational pharmaceutical companies, which have been active in foreign investment in China. The procedure to issue a compulsory license, therefore, involves more than the patent office. However, the sophisticated deliberation procedure and foreign affairs concerns act as a fetter on issuing a compulsory license.

10.3.5 Effects of balancing

There are two major effects of China’s balancing strategy: one is constructed inconsistency, and the other is the invisibility of China on many IP issues at the international level. Constructed inconsistency refers to the variegated positions of China at the bilateral level and multilateral level on the same issue. The inconsistency is enabled by international regime complexity in the area of intellectual property. For instance, on the issue of TRIPS-plus provisions, China is an active tester at the national level, an active blocker at the multilateral level, and keeps opportunities open at the bilateral level.

The foreign policy chessboard and reticence lead to the same effect; they make China less visible in the international policy debates on intellectual property. China’s uniform foreign policy consideration hinders bottom-up initiatives. At the foreign policy chessboard, intellectual property may sometimes be sacrificed for reciprocal purposes. Reticence, on the other hand, impedes China from joining developing country proposals to promote access at the international level. By taking this measure, China is gradually separating itself from its developing country allies on IP issues, a result that is inevitable as long as China keeps embracing the innovation stimulation theory. In summary, these two measures keep China cautious and inactive in international IP engagement.

10.4 Summary

China has used the strategy of modeling to fulfill its foreign policy commitment and/or achieving its innovation stimulation goals. Balancing is another strategy China uses to manage contestation of principles. The outcomes of modeling are compliance with international standards and institutional isomorphism, while the effects of balancing are constructed inconsistency and the perceived low-profile of China in its international IP engagement.

With regard to the question of whether China will become an international IP rule-maker, the strategies of modeling and balancing provide an insider’s view. Institutional isomorphism, as an effect of modeling, means that the Chinese IP system will become similar to the western (in

particular the US and EU) IP systems it modeled. Through modeling, Chinese IP regulators (and epistemic communities) established and consolidated transnational networks. Innovation stimulation theory took root in China and has spread through these transnational networks. Consequently, China tends to take similar positions to those who have forged the link between innovation stimulation theory and the models that now form the basis of international IP regulation. However, this clear tendency is obscured by the balancing strategy. As a result of foreign policy concerns, China dissembles on its positions in fora at different levels. For example, it is reticent to support developing countries' access-related proposals and calculates its foreign policy risk whenever it intends to make its own proposal. Balancing illustrates how China struggles to accommodate changing principles in a period of rapid transition.

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Chapter 11 Conclusion

Three questions were set up at the beginning of this thesis: (1) how does China engage with the international IP system? (2) has China become an IP rule-maker? and (3) what underpins China's international IP engagement? These three questions have been analyzed through cases where China has had opportunities to become a rule-maker (GIs, the disclosure obligation and IP and standardization) and cases that capture China's extensive engagement bilaterally and multilaterally. The discussion chapters analyzed actors involved in China's international IP engagement, identified the principles that the actors follow, and the strategies that actors use to pursue one principle or manage contestation of different principles. This chapter, based on the previous analysis, draws together the conclusions to the three questions initially raised.

11.1 Strategies behind China's engagement and their consequences

China engages with the international IP system through strategies of modeling and balancing to manage the contestation of principles that China has chosen to observe simultaneously. Specifically, the Chinese government (and its ministries) uses the strategy of modeling to operationalize the principle of IP instrumentalism; it uses the strategy of balancing (including dissembling, reticence and foreign policy chessboard) to address the contestation between the principles of IP instrumentalism and its foreign policy agenda. Nonetheless, the effects of the strategies have gone beyond achieving these expected goals.

It is clear that the Chinese IP system has moved closer to the US or EU IP systems than might have been expected on the basis of mere modeling alone. This is because the strategy of modeling has introduced institutional isomorphism and a similar mindset among IP regulators. Four-decades of modeling makes China similar to rather than different from developed countries in the recognition of intellectual property and in its positions concerning international IP regulation, even on the issue of the export of IP rules. China has quietly emerged as an IP model exporter in its engagement with the BRICS countries and in the BRI IP arrangement. China will continue to use these strategies in the foreseeable future because the contestation of principles (IP instrumentalism versus foreign policy agenda) will continue.

China has used the strategy of balancing to manage contestations between different principles. Three specific balancing strategies (dissembling, reticence and the foreign policy chessboard) were discussed in this thesis. Dissembling leads China into constructed inconsistent positions at the various different levels of international engagement and rule-making. Reticence is used by China to keep a low profile in its international IP engagement.

11.2 Tipping point for China to be a rule-maker?

The case studies basically indicate that China has some way to go before it can claim a regulatory agenda-setting influence to match its status as the world's second largest economy. Even where China looks to promote a rival standard, as in the WAPI case, its attempts have been resisted by the US and ultimately defeated. Nonetheless, China's recent IP engagement with the BRICS and BRI reveal that China is adjusting its principles and strategies to produce more active engagement. Is this a sign that China is moving from reticence to assertiveness in its international IP engagement? This would be consistent with its emphasis on enhancing its innovative capacity and its belief in the function of intellectual property to stimulate innovation. However, given the contestations between the IP principles and foreign policy principles, the answer to the question also depends on what happens in China's foreign policy sphere, in particular, China's self-identification as a developing country. It is a question that can only be answered through the passing of time.

Even if China becomes more active in international IP regulation, it is very unlikely to be able to exercise the kind of dominance that the US demonstrated during the making of TRIPS. In fact, because of legal fragmentation, rule ambiguity created by international regime complexity and the rise of the international civil societies, no state, the US included, can dominate the IP rule-making game in the way that the US and EU once did. International regime complexity provides powerful states with more opportunities to play cross-regime games or create an entirely new regime, but it also means that no single state can be the rule-maker for all regimes. The variegations of China's role in specific cases (see Table 18) shows that it is not possible to capture China's role with a simple binary of rule-taker v rule-maker. China has entered a game of great networked complexity in which IP is one key global issue, but only one. Where China will end up on intellectual property is hard to say, not just because of China's speed of development, but because there are many others players in the game also responding and affecting this networked complexity.

11.3 Motivations for China's international IP engagement

This thesis set out two propositions for China's international IP engagement: either China is trapped by IP rules set by the US (the China trapped proposition) or China engages with the international IP system to achieve its own grand strategy (the grand strategy proposition).

Though seemingly exclusive, these two propositions are not contradictory from a longitudinal perspective. After a review of IP history in modern and contemporary China (Chapter 2) and case studies on China's international IP engagement in specific areas, I find that the data indicates that the two propositions can be reconciled if they are seen as part of a historical process. China had to comply with US demands on intellectual property in order to continue its science and

technology cooperation with the US and to gain membership of the WTO. From 1978, a process started in which Chinese IP regulators (ministries in charge of intellectual property) began to consolidate and a strong domestic IP epistemic community began to grow. The influence of the US and the EU on intellectual property in China was exerted through the transnational networks they established with various domestic institutions in China.

Over time, China began to use intellectual property as a fulcrum to leverage its trade and export capabilities and to attract FDI in the early days of its Reform and Open-up policy. Once advanced technologies were introduced to China, they took root in China — first absorbed by local partners, then integrated with existing technologies, and further adapted to fit local conditions. At this point, China began to calculate what it could win using intellectual property as the rules of the game for its economy. China is implementing its grand strategy of innovation-driven development to achieve technology catch-up. It is a grand strategy in which intellectual property is seen as being critical to its development. Plurilaterally, China emphasizes IP cooperation and is ready to export its best practice in IP regulation to other BRICS countries and to cooperate on IP with the BRI countries (Chapter 7.5.3 and 7.5.4).

In the end, however, there is no uniform answer to the questions of “who is trapped” or “whose grand strategy”. The evidence from the perspective of the dynamic of sub-state actors in China (Chapter 8) is cloudy. For instance, in late May 2017, while the Chinese Food and Drug Administration was collecting comments on its proposal for a patent linkage mechanism and longer-term data exclusivity in China, MOFCOM proposed to the WTO TRIPS Council to allow more flexibility in intellectual property to promote public interest (IP/C/W/630) (Section 9.3.2). In the end, China’s vast internal bureaucratic networks on IP have added yet another layer of network complexity to the globalization processes of intellectual property.

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Appendix I Multilateral Treaties Effective in China¹

Administer/ Forum of negotiation	Name of the Treaty	Date effective to China
WIPO- administered Treaty (14 ratified, 3 signed but not ratified)	The Convention Establishing the World Intellectual Property Organization	June 3, 1980
	The Paris Convention for the Protection of Industrial Property (1967) (the Paris Convention)	March 19, 1985
	The Madrid Agreement Concerning the International Registration of Marks (1989) (the Madrid Agreement)	October 4, 1989
	The Berne Convention for the Protection of Literary and Artistic Works (1971) (the Berne Convention);	October 15, 1992
	the Convention for the Protection of Producers of Phonograms against Unauthorised Duplication of their Phonograms (1971)	April 30, 1993
	the Patent Cooperation Treaty (1970), as amended in 1979, and modified in 1984 and 2001	January 1, 1994
	the Nice Agreement Concerning the International Classification of Goods and Services for the Registration of Marks (1957), as amended in 1979 (the Nice Agreement)	August 9, 1995
	the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure (1977), as amended in 1980 (the Budapest Treaty)	July 1, 1995
	The Madrid Protocol	September 1, 1995
	The Locarno Agreement Establishing an International Classification for Industrial Design (1968), as amended in 1957 (the Locarno Agreement)	September 19, 1996
	The Strasbourg Agreement Concerning the International Patent Classification (1971), as amended in 1979	June 19, 1997
	WIPO Copyright Treaty (WCT) (1996)	June 9, 2007
	WIPO Performances and Phonograms Treaty (WPPT) (1996)	June 9, 2007
	Beijing Treaty on Audio-visual Performances (2012), (Beijing Treaty, not yet in force)	July 9, 2014

¹ Data collected on February 10, 2017, referring to the WIPO and CBD websites:
<http://www.wipo.int/treaties/en/summary.jsp>, and <https://www.cbd.int/>.

	Washington Treaty on Intellectual Property in Respect of Integrated Circuits (1989) (the Washington Treaty, not yet in force)	Signed in 1989
	Singapore Treaty on the Law of Trademarks	Signed on Jan 29, 2007
	Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled (2013), (Marrakesh Treaty)	Signed on June 28, 2013
WTO	Agreement on Trade-Related Aspects of Intellectual Property Rights (1994) (TRIPS)	December 11, 2001
UNESCO	the Universal Copyright Convention (1971)	October 30, 1992
	The Convention for the Safeguarding of the Intangible Cultural Heritage (2003)	April 21, 2006
	The Convention on the Protection and Promotion of the Diversity of Cultural Expressions (2005)	December 29, 2006
UPOV	The International Convention for the Protection of New Varieties of Plants (1978)	April 23. 1999
COP of the Convention of Biological Diversity	The Convention on Biological Diversity (1992)	January, 1993
	The Cartagena Protocol on Biosafety to the Convention on Biological Diversity (2000)	April 27, 2005
	Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation to the Convention on Biological Diversity (2014)	September 6, 2016

Appendix II Intellectual Property Regulators in China

The following table contains the names of all 31 members to the State Council Inter-Ministerial Joint Meeting for the Implementation of the National Intellectual Property Strategy both in Chinese and in English.²

中共中央宣传部 (国务院新闻办)	Central Propaganda Department of the Chinese Communist Party
最高人民法院	Supreme People's Court
最高人民检察院	Supreme People's Procuratorate
外交部	Ministry of Foreign Affairs
国家发展改革委员会	National Development and Reform Commission
教育部	Ministry of Education
科技部	Ministry of S&T
工业和信息化部	Ministry of Industry and Information Technology
公安部	Ministry of Public Security
司法部	Ministry of Justice
财政部	Ministry of Finance
人力资源和社会保障部	Ministry of Human Resources and Social Security
环境保护部	Ministry of Environmental Protection
农业部	Ministry of Agriculture

² Source of the list: website of the General Office of the State Council Inter-Ministerial Joint Meeting for the Implementation of the National Intellectual Property Strategy <http://www.sipo.gov.cn/zlssbgs/#>, last retrieved on January 24, 2018.

商务部	Ministry of Commerce
文化部	Ministry of Culture
卫生和计划生育委员会	National Health and Family Planning Commission
人民银行	People's Bank
国务院国有资产监督管理委员会	State-owned Asset Supervision and Administration Commission of the State Council
海关总署	General Administration of Customs
工商行政管理总局	State Administration of Industry and Commerce
质量监督检验检疫总局	General Administration of Quality Supervision, Inspection and Quarantine
新闻出版广电总局 (版权局)	State Administration of Press, Publication, Radio, Film and Television (National Copyright Administration)
国家林业局	State Forestry Administration
国家知识产权局	State IP Office
国务院法制办公室	Legislative Affairs Office of State Council
中国科学院	Chinese Academy of Sciences
国防科技工业局	State Administration of Science, Technology and Industry for National Defence
中央军委装备发展部	Central Military Commission Equipment Development Department
中国国际贸易促进委员会	China Council for the Promotion of International Trade

Appendix III IP targets in the Action Plan for Further Implementing the National IP Strategy (2014-2020)

Target	2013	2015	2020
Invention patents by residents (unit: patent numbers/ 10, 000 people)	4	6	14
Patent applications filed via the "Patent Cooperation Treaty" (unit: 10, 000)	2.2	3.0	7.5
Average years of maintenance of an invention patent applied for by a resident	5.8	6.4	9.0
Number of copyright registrations (unit: 10, 000)	84.5	90	100
Copyright registrations for computer software (unit: 10,000)	16.4	17.2	20
Total amount of trading in technology contracts registered at technology exchange market nationally (unit: 100 billion)	0.8	1.0	2.0
Annual amount of IPR pledge financing (unit: 100 million)	687.5	750	1800
Royalties and license fees from export of exclusive rights (unit: USD 100 million)	13.6	20	80
Annual increase in the revenue of intellectual property services (%)	18	20	20
Social satisfaction with intellectual property protection (score)	65	70	80
Average period for substantive examination of an invention patent (months)	22.3	21.7	20.2
Average period for registered trademarks (months)	10	9	9